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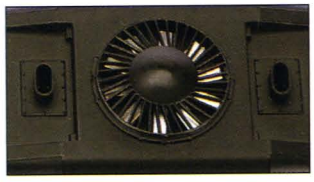

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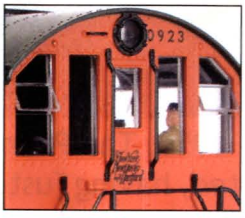

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Number Built: 449
Horsepower: 2250 hp

Model Data:
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- DCC Friendly
- Directional headlights
- Illuminated number boards

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Prototype Data:
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Horsepower: 1000 hp

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- Directional headlights
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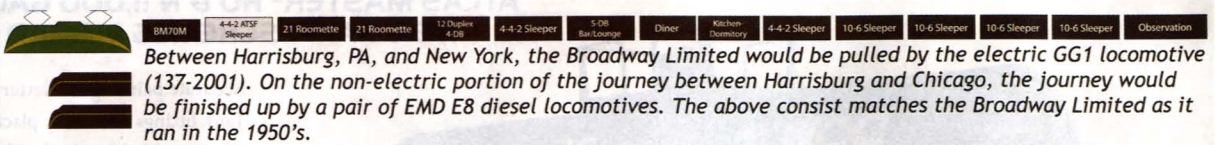

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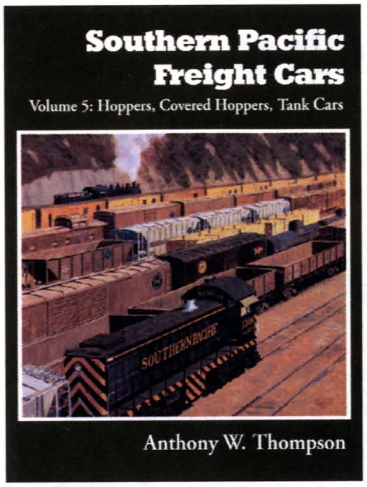

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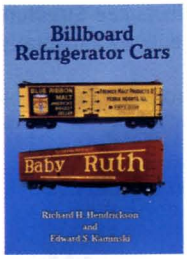

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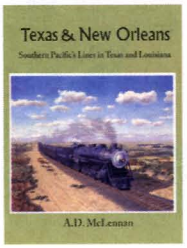

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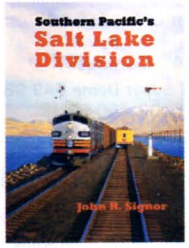

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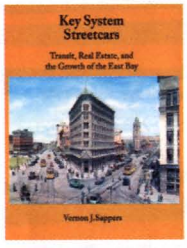

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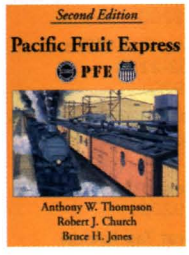

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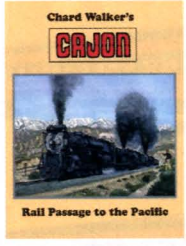

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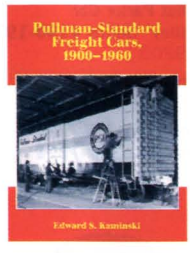

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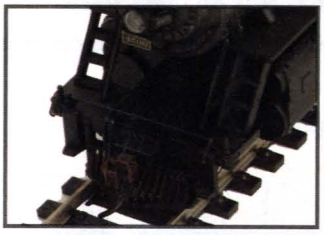

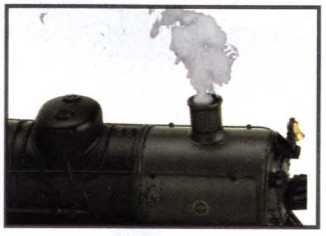

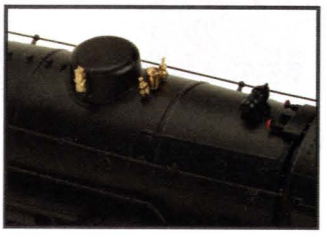

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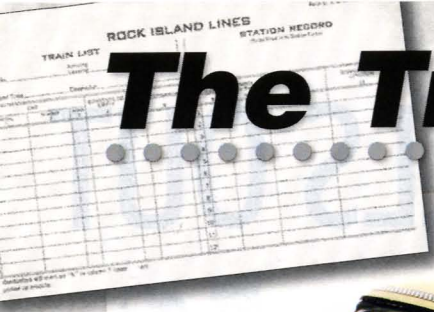

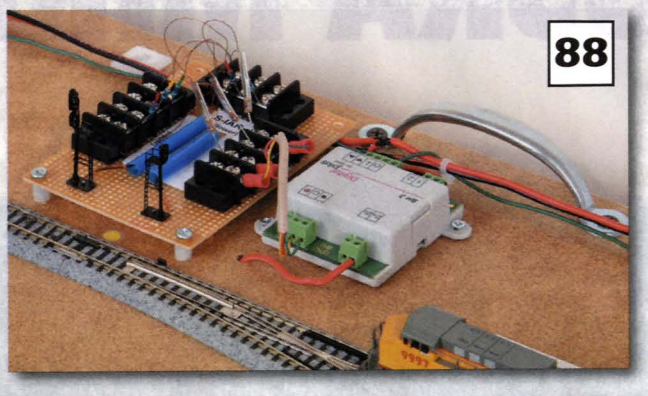

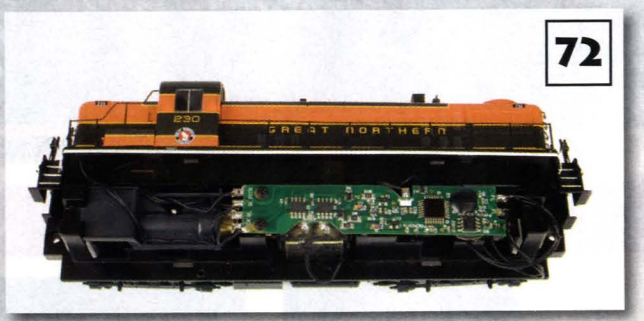

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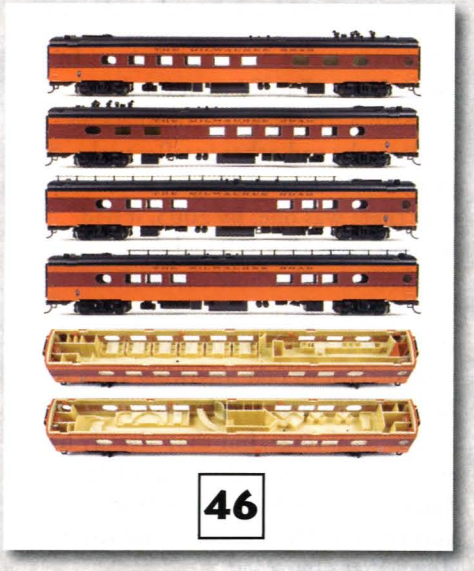

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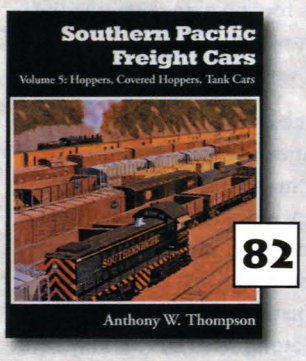
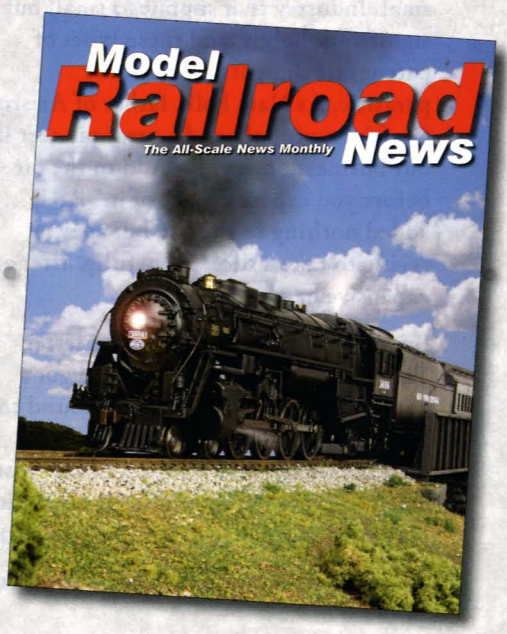




About The Cover: *All polished up by her crew the day before, Mohawk number 3006 speeds along with the NYC's Knickerbocker to which it has been temporarily assigned. The dual passenger-freight service 4-8-2 is just the latest offering in a line of high quality HO-scale models coming from MTH Electric Trains. - Photo by Dave Otte*

Editorial

A letter from the past and another from the future

When I tore open the envelope, I found inside a press release from the NMRA about the Real Rail Effects patent appeal. Let's go back and understand what this is all about. RRE decided to patent the process of controlling sound systems under DCC, claiming they invented the process. The US Patent and Trademark Office issued the patent, not seeing a problem with the basic idea.

When the industry in general and the National Model Railroad Association in particular saw this patent looming on the horizon, they got it right away. Everyone who created decoders that controlled sound would have to give money to RRE. Then, too, they understood that RRE didn't invent DCC sound control, they just trolled out a patent for it. Imagine if I got a patent for flanges on wheels? How would the railroad industry deal with that?

NMRA and associated supporters dug deep and bought billable hours from lawyers, putting together a challenge on every issue in the patent. As of September 30, 2008, a USPTO examiner studied the issue and rejected all of the claims in the patent, in effect nullifying it. RRE has two months to file a response, though they said nothing during the challenge process and aren't likely to reverse the patent office's ruling even if they do respond.

This is good news, because this is a very small industry that supplies a small but significant hobby, and these types of patent attachments are basically parasitic. As Nate Polk, father of Aristo-Craft's Lewis Polk and a great pioneer in our business once said, "Add to the pie before you expect a piece of it." RRE added nothing to the pie, but they're trying to take a slice. Hopefully, after an expensive battle, this is over.

But this factors into the second letter. This one wasn't sent to me, but I got a copy anyway. It has been sent around to a large number of model rolling stock manufacturers, and it's from BNSF. Just when we were starting to smile after the Union Pacific debacle, here we go again.

BNSF wants money, so now they're going to try to milk our tiny industry. They end up the letter by saying, "BNSF requires entities that use our intellectual property to be licensed with us."

That "intellectual property" is actually not only BNSF but also Santa Fe, Burlington Northern, Frisco, Northern Pacific, Great Northern, CB&Q, SP&S, and others. They state: "Our standard royalty for use of our logos and associated images is five percent of the total sales of items bearing the logos and related images of BNSF and its predecessors, with a $1,000 advance royalty payment due upon issuance of the licensing agreement."

Later in the letter, it says, "Our goal is to participate in the value derived from the use of our logos, paint schemes, and associated images but not to keep anything bearing those logos, paint schemes, and associated images from being made or sold."

Got the picture? There are a lot of angles on this, but let's approach this from the angle of reality. We have a very small industry. Even the "big players" in model railroading are really not very large companies. Many companies are little more than Mom & Pop operations while others are huge with thirty employees or so. I know several companies that really just meet the needs of their employees, pay modest salaries for the management, and have little to show beyond a lease agreement and various kinds of equipment.

A thousand bucks up front? I don't think so. Five percent of the total sales? There goes the profit margin. For many companies, they will just stop putting BNSF brands on their products, the letter's assertion notwithstanding. We live in a very unstable economy, and the others who go along with BNSF may find themselves out of business.

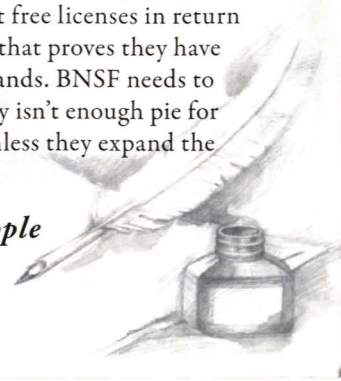
What BNSF is doing is not illegal, but it does have the joyful property of the biggest kid in school shaking down the kindergartners for their milk money. It is a prime example of corporate arrogance, where one division or department in a company sets a course of action that seems perfectly reasonable to them, even if they have no idea what impact they are having at the other end.

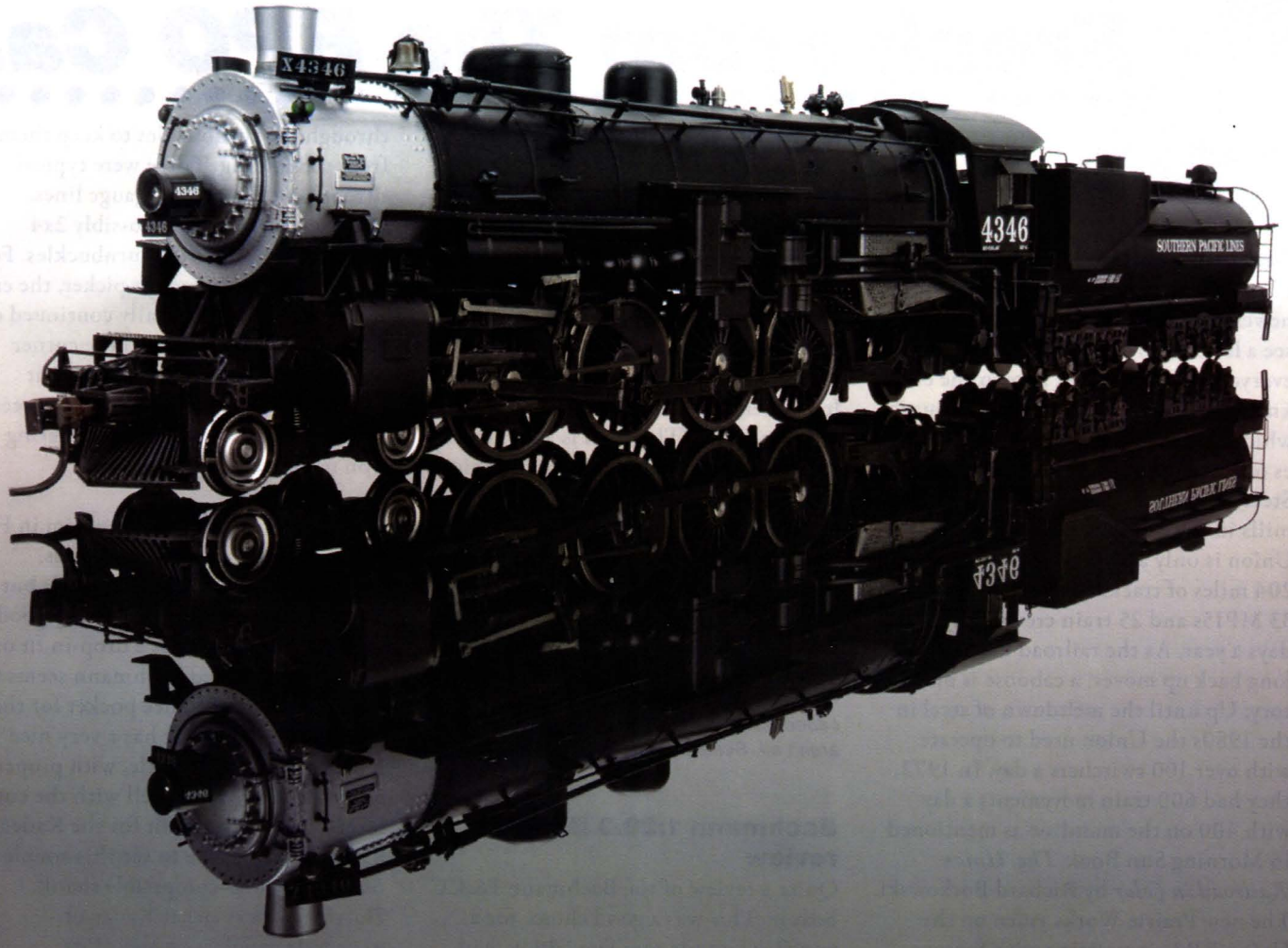
Of course, we've been here before. In 2002, Union Pacific went on the warpath with the whole business of trademarks and other intellectual property, that last being an oxymoron if ever there was one. By 2005, it had become clear that UP had dug themselves into a hole where their licensing program was costing far more than it was taking in or was ever likely to take in. Not to take anything away from Mike Wolf's masterful victory over them on the legal stage, but they already had some serious doubts and legal reversals fueling the desire to settle. Don't be surprised if BNSF doesn't find itself down that same road.

What did UP learn that BNSF hasn't so far? Union Pacific was trying to get its brand up in the pantheon of big-time trademarks such as "GAP" and "Tommy Hilfiger." I don't know many kids were burning to spend $125 for a T-shirt with the "Union Pacific" brand just to make their friends jealous, but some folks at UP seemed to think this was plausible. However, the Intellectual Property people told them they'd have to plug the leaks, which is how they described the railroad hobbies. Where they are now makes a lot more sense. They only have to control their trademarks; they don't have to be paid, which is good because they weren't going to get much, anyway.

And that brings us back to BNSF. Guess what? BNSF is lining up to be a corporate sponsor of the Super Bowl in 2011. Along with high-power advertising, they get a bunch of tickets to scalp, and a skybox in the stadium. What's the catch? I'm guessing the Intellectual Property people have told BNSF they need to plug their leaks. Their net profit will be a ton of bad press and very little cash inflow. They could save themselves a lot of grief if they'd just give out free licenses in return for an application that proves they have control of their brands. BNSF needs to realize there simply isn't enough pie for them to get any unless they expand the pie first.

— By John Sipple





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Fresh From The RPO Car

Caboose Editorial

I found your editorial on cabooses in the newest issue of *MRN* interesting. You see a lot of railroads still use cabooses in everyday trains, at least here in the east. I know the Union Railroad of Pittsburgh, which I model in 1:29 scale, uses cabooses on every train they run. They are U S Steel's switching railroad for the Steel mills in the Monongahela Valley. The Union is only a 18 mile mainline with 204 miles of track, but they operate with 33 MP15s and 25 train crews daily, 365 days a year. As the railroad has many long back up moves, a caboose is mandatory. Up until the meltdown of steel in the 1980s the Union used to operate with over 100 switchers a day. In 1972, they had 600 train movements a day with 400 on the mainline as mentioned in Morning Sun Book *The Union Railroad in Color* by Richard Borkowski. The new Prairie Works video on the Union RR is interesting with footage shot from 2003 to 2007 and every train has a caboose.

I saw recent pictures in Railpace of Norfolk Southern trains operation in NE cities with cabooses for the same reason, especially in areas where there are not turn around tracks. I believe CSX also utilizes them as well.

There is a URR caboose on every train that runs on my indoor steel mill layout, which now has 400 feet of track with a mainline run of 90+ feet through 4 rooms in my 1890s cellar and a 40 foot branch line. I currently have 65 Aristo manual switches.

Jeff Damerst
Shawmut Car Shops

Hi, Jeff, long time! Thanks for adding perspective to the whole modern caboose thing. I have been appropriately chastised by those who are certain that railroads can't and won't afford such extravagance, but like everything else, if they were told that a small, red company car would be attached to the end of every train and to make it practical, they would. -John

More on the caboose thing

That portion of your Editorial in the November issue regarding cabeese (aka cabooses) rather amused me when I realize that I must have at least twenty of them, most parked on a caboose track within my SP yard. I use one on every train that leaves the yard.

It also reminded me of the Pennsylvania Dutch saying, "The train is all when the little red house makes." I suppose this was the English translation directly from the German.

C.F. "Chuck" Colville
Moses Lake, WA

I love it! "The train is all when the little red house makes." Since they stopped putting cabooses (cabeese?) on trains, the trains aren't all. Sums it up perfectly. Thanks, -John

Bachmann 1:20.3 Boxcar review

Quite a review of the Bachmann F&CC boxcar. This was a good choice for a non-Rio Grande car. The F&CC had 200 of these, numbered 500 to 699. On the demise of the F&CC they wound up on several roads throughout the west. Mal Ferrell's book on the F&CC has pictures of several types of cars on flat cars being shipped from the builders, including the 540. Colorado Rail Annual had drawings and photos of the boxcars on several lines.

Accucraft has a nice plastic model of the Rio Grande's "short" caboose, four of which went to the F&CC. It could be a good start toward the 05 and 06, which had the cupola at one end and the side windows at the other.

I don't know what info you may have about coming 1:20.3 items from Bachmann other than the "long" caboose, but Accucraft seems to be getting the passenger car void filled. They have an open-platform coach now, with a combine on the way — in plastic — in addition to their brass San Juan cars.

One minor detail that is on my car but not the two you got is the boards through the turnbuckles to keep them from unwinding. These were typical throughout the narrow gauge lines. Usually a piece of 1x4, possibly 2x4 through two adjoining turnbuckles. For the technical-minded nit-picker, the end tie rod apparently actually continued out through the side and used the corner iron as a washer — the model has it going into the car at almost 90 degrees, possibly a little work with a soldering iron might set it in place.

Couplers are becoming a problem in Fn3. Right now there are three choices. Bachmann has a working knuckle but its contours are blocky and not very good looking. Kadee's 830 is a drop-in fit on the newer cars, and Bachmann seems to have adopted the Kadee pocket for their equipment. Accucraft has a very nice looking working knuckle, with proper contours, that works well with the cut levers. It is a drop-in fit for the Kadee 835 pocket. I'd love to see this coupler on a Kadee 830-compatible shank. Hartford offers either Kadee or Accucraft couplers on their kits.

I'd like to put in a pitch for a loco that Bachmann could do in Fn3. F&CC #51 was a Forney similar to the ones they do in On30 — built as an 0-4-4T, later got a pilot truck as a 2-4-4T. It wound up near Salinas on the Pajaro Valley Consolidated. A good, compact loco for large scale.

Glenn Joesten
Yreka, CA

Good idea, Glenn. I would think a nice 2-4-4T Forney would be very popular as a small Fn3 locomotive, perfect for a short passenger run or a limited freight. The nice thing about the little Forneys is that they offer a much longer electrical wheelbase, an improvement over little 0-4-0T and 0-6-0T switchers.

At least one model railroad company making large scale products has shied away from a Kadee-compatible coupler because of patent issues. However, Bachmann's adoption of a compatible coupler pocket that makes conversion a drop-in solution is very welcome to those of us who have standardized on Kadees.

I removed the boards in the turnbuckles after

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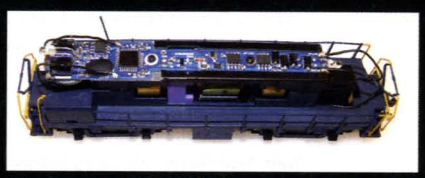

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MAILING ADDRESS
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COURIER ADDRESS (UPS, FedEx, DHL, etc.)
400 Galice Rd • Merlin, OR 97532

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P.O.Box 1080 • Merlin, OR 97532-1080
nancy@modelrailroadnews.com

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some of them fell out. I might put them back in and glue them in place. -John

More on the big Bachmann boxcar

Just read the boxcar review last night and boy did it leave me confused. Mostly in the history parts anyway.

First off, the Denver & Rio Grande built down from Denver, through Colorado Springs to Pueblo, splitting to build both South to El Moro (Trinidad area) and West toward Leadville. It was all narrow gauge until 1911!

Colorado Midland and the CS&CCD were both Standard gauge from the start and the CM was why the D&RG began to dual gauge.

I wouldn't call Florence midway, as it was only 30 miles from Pueblo, while Leadville is approximately 155 miles from Pueblo.

F&CC cars were seen on the Rio Grande Southern on numerous occasions! They were obviously interchanged!

The F&CC did lease the CS&CCD and got involved with the Midland Terminal too, but I need to refresh my memory on the details. The MT was a subsidiary of the CM, running from Divide to Cripple Creek.

Gold ore was shipped in boxcars from the CC District to the Florence area and to Pueblo, where several smelters had been built. The F&CC was badly damaged in the 1912 floods of Phantom Canyon.

F&CC cars did not have the board protecting the door rollers.

All in all, nice looking cars, though. If I weren't so into Sn3, I would go BIG!

Robert R Harmen, DDS
Grand Junction, CO

Thanks for straightening out my geography, Robert. I think when I used the term "midway" I didn't have in mind a mathematical halfway mark, just that Florence was somewhere in between. I wouldn't let the fact that you're into Sn3 keep you from putting a layout in your garden. Two different levels of enjoyment, believe me! –John

Comments on the Intermodal Review

Just opened the Nov. issue to read about the intermodal cars you reviewed. I've been reading trucking industry trade publications since 1961 and reviewed older issues back to 1940, so I have some historical background on truck sizes vs. time frames. All the intermodal containers are handled by trucks when not on ships or trains.

The limit on truck width, length, and height was a state-by-state regulation until 1983. Western states generally allowed larger trucks than eastern states with the overall length, width, and height not very uniform. This worked when most trucks did not run very far, but got to be a royal pain in the neck once the Interstate highway program cranked up in the late 1950s. Truck width was limited to 8 feet (96 inches) (the most uniform of the limits) while lower clearance bridges in the east kept overall heights to 12-feet 6-inches into the middle 1960s. Truck and combination lengths were 60 to 65 feet in the western states and 45 to 55 feet to the east. Double trailer combinations only became nearly coast to coast common in the middle to late 1970s with Iowa and Pennsylvania holding at 60 feet overall.

California did not get 45-foot semi trailers until the early 1970s (although Rio Grande operated 45-foot trailers in the state of Colorado in the late 1940s). The 40-foot semi trailer was legal by 1960 when containerization' came along promoted by Fruehauf trailers. They came up with the 20-foot container (originally connected to make one 40-foot trailer). These "international containers" came from the USA truck trailer sizes. Twenty four-foot containers were used by Matson Navigation in California to Hawaii service since two 24-foot trailers could be hauled by one tractor within 60 to 65 feet overall combination length.

The BIG CHANGE came in 1983. Up until then, all piggyback trailers and shipping containers were 20/40-foot long. Forty five-foot trailers run by trucking subsidiaries of the railroads were handled one to a 85/89 foot flat car prior to 1983, but they were rare. The Surface Transportation Act of 1983 was the first time the Federal government

mandated truck sizes to the states with the threat of cutting their Federal funding of highways. The new national truck size (and weight) standards addressed only the trailer(s) with 102-inch width, a 48-foot semi trailer limit or a pair of 28-foot long doubles and an 80,000 pound maximum gross weight limit. It took about two years for this new standard to be seen and allowed as the states slowly got on board.

By 1985 piggyback trailers were 96 inches wide by either 40- or 45-feet long (the newer 40-foot trailers were stretched to 45 feet), or the new trailers were 102 inches wide by 45- to 48-feet. The trucking companies all went to 48-foot trailers, the railroads stayed with the 45 foot (to fit on 89-foot flat cars that were the backbone of the piggyback flat car fleet).

By 1984, I saw the double stack American President Line trains with 20/40 and 45 foot containers. So the first 45-foot container was APL back in 1984.

The 53-foot container was also an APL invention about 1987. These were still 96 inches wide to transport on ocean ships. The 102-inch wide domestic containers came from J. B. Hunt, top mount on double stacks only.

I have never heard of a 57-foot trailer or container (outside of Nevada — which has never had any length restriction on trucks at all). I have heard of 53-foot semi trailers being operated through New Hampshire (where they were not legal) since the 53-foot trailer/container is the current "national standard."

I've known about Maersk since 1958 when I met a Maersk ship's Captain's son in my 7th grade class. They have adapted well to the changing shipping market but they didn't "invent" the 53-foot container. APL did that.

Robert Rogers
Antioch, CA

Lotta good stuff there, Robert. Thanks for adding onto my review. Reference to the 57-foot container comes from Gunderson's web site: www.gbrx.com/PDFtecbulletins/StackCarsMaxiIV.pdf. The top container on the left is, indeed, a 57 footer. I don't know where I came up with the assertion regarding Maersk and the 53-foot container, but I do know that APL was the first to order 53 foot containers from Thrall. Bill Cawthon has a few thoughts to share, too. –John

Hi, Roger,

Hope you won't mind my chipping in a few comments: 40-foot trailers were approved following the passage of the Federal-Aid Highway Act of 1956 which established the Interstate Highway System. They were legal by 1957 and in widespread use by 1960.

The Surface Transportation Act of 1983 also established the Federal Bridge Formula which is used to calculate legal lengths and weights by axle loading. The 102-inch width also applies to commercial bodies (i.e., box vans on straight chassis). BTW: Most states restrict 102-inch wide trailers or bodies to roads with traffic lanes at least 12-feet wide (another good reason to avoid selective compression of roads on a modern-era layout).

Maryland was the last state to allow 53-foot trailers on Interstate Highways. It approved them in 1992. New Hampshire actually allows 53-foot trailers on and off the Interstate Highway System, as does Nevada. Nevada does not allow 57-foot trailers.

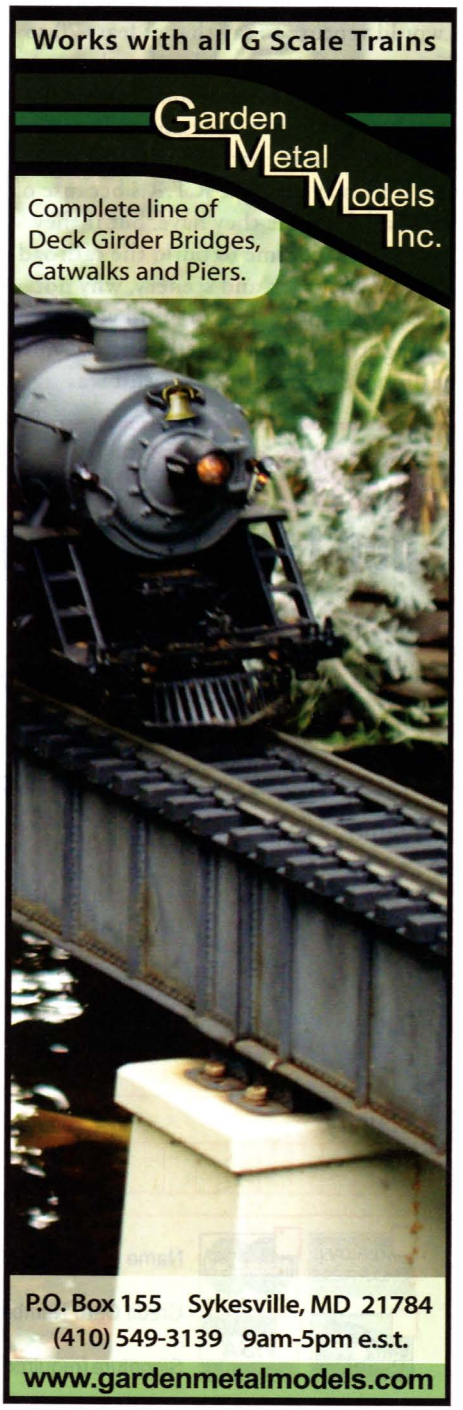
Fifty seven-foot trailers are currently legal on Interstate Highways in 9 states: Alabama, Arizona, Colorado, Florida, Kansas (allows up to 59-feet 6-inches), New Mexico, Oklahoma (allows up to 59-feet 6-inches), Texas (allows up to 59 feet) and Wyoming (allows up to 60 feet). Washington allows trailers up to 56 feet long. Note that some of these states only allow the longer trailer on specified highways and within one mile of the highway to allow for refueling, dining, and rest breaks.

Some states also allow the 57-foot trailer off the Interstate Highway system. These include Colorado, Florida, Kansas, New Mexico, Texas, and Wyoming. Washington allows 56-foot trailers off the Interstate System. –Bill

Double-decker outhouses!

The caption of the Wild West Models photo on page 24 (Sept 08) defines the double-decker outhouse as "comical" – not really. They DO exist, notably in Appalachia. Think about it: when the snow's 15- to 20-feet deep, and you have to tunnel out of your domicile, why have a tunnel to the facility? Simply use the upper portion of the outhouse. I've been told there's even a few up north here in Alaska, don't know if it's true.

Ed Henson
Sitka, AK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Hi, Ed. There are very deep snows around Oregon's famous Crater Lack, so the old lodge up there had a double-decker outhouse and a catwalk over to the second story from the second floor of the lodge. When I took a class of students up to Crater Lake, they found this to be tremendously funny because they visioned unfortunate consequences for anyone on the first floor! After being shown how the second floor dropped behind the first floor, the potty humor was marginally abated. –John

Kits vs RTR, redux

I came upon the "pet-peeves" that Phil Scandura wrote about R.T.R.'s vs. kits. While Phil is certainly entitled to his opinion, I for one think he's dead wrong. I would venture to say that at least 70 to 75 percent of true model railroaders enjoy being able to assemble their own cars, being freight or passenger. I suppose that people that are still working full time may just like R.T.R.s because of the available time they have, but if they have taken the time to build the railroad and laid the track and scenery, why not take a little more time to build your own rolling stock? Remember, Rome was not built in a day and the end result was outstanding! I for one along with most of our club members prefer to build their own cars with the exception of the locos.

My reason for one is that I don't care for plastic wheelsets or couplers of which I would have to replace on about 95 percent of R.T.R.s. My preference has been for many years, Kadee trucks and couplers. Their quality is beyond reproach in my opinion, as I have never had any of their products fail even once.

Andy Anderson
Phoenix, AZ

Hi, Andy. I think many of us wish 70 to 75 percent really did prefer kits over RTRs, but the marketing facts say otherwise. Last month, a dealer informed us in this column that too many of her kits went onto the clearance table because she couldn't get a taker otherwise.

I'm unable to define what is a "true model railroader." I don't have the luxury of taking a restricted view of that definition. Anybody who sets up a regular layout (as opposed to those who only sets up a display during the holidays) is a true model railroader, in my book. I happily include the folks with little gnomy trains in their gardens, Lionel tinplate on the floor, and even briefcase Z-scale layouts.

It's worth noting that the Kadee who produces the products you enjoy so much only make RTR HO freight cars for rolling stock. They, of course, install their own trucks and couplers on these very fine models. –John

Where did that phrase come from?

I'm sure that you are familiar with the hobo phrase "catching the westbound train." I'm aware of the meaning of this phrase, but cannot seem to find the origin of it. I'm very curious as to why it's the westbound. I would greatly appreciate it if you could answer this for me.

Scott Canavello
Bob Liepsner and Associates

I can only offer conjecture, Scott, but I would guess that of the four cardinal points of the compass, Westward was in the direction of the frontier, adventure, and perhaps opportunity. We have the cry, "Go West, young man!"

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to bolster this assertion. So, unless the hobo was addressing a specific train in the morning, he might use Westbound poetically to indicate he's going to take what Robert Frost referred to as "The Road Less Taken." If any of our readers can contribute something more historically specific, we'd be interested. –John

Project DCC and Atlas Switch Machines

I received the November 2008 issue today which contains a review of DCC stationary decoders in the Project DCC column starting on Page 90.

I admit that I skimmed it quickly, but I didn't see any mention of the capability to operate turnouts with push buttons on a control panel. I know that the Digitrax stationary decoders that I use do have this feature and that the Lenz stationary decoder sitting in my spare parts drawer does not.

I still like to use control panels with bi-color LED's and push buttons, and the ability to control turnouts with both my wireless throttle and with push buttons is very important to me. I believe that the availability of this feature should be spelled out for each stationary decoder mentioned.

It is also noted in the same column that you are planning to use Atlas switch machines on your project layout. Beware! My club has had trouble with them in both the N- and HO-scale versions. We find that the throw rod mechanism will probably not be able to throw the points reliably if: 1) the vertical distance from the turnout to the switch motor (determined by the thickness of the roadbed and table) is greater than a quarter inch, and 2) if there is any resistance whatsoever in the travel of the points.

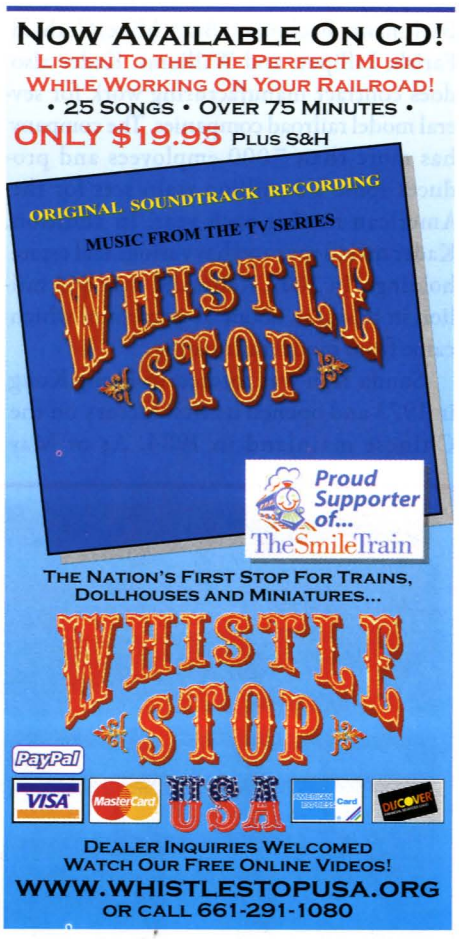
The reason for their unsatisfactory performance is due to the design of the throw rod. The plastic portion of the throw rod twists excessively when torque is applied to it, effectively robbing the vertical wire of the force needed to move the points and to hold them in position. You should be able to verify this defect just by moving the wire back and forth.

Bob Gatland
Wilton, NY

Hi, Bob. Thanks for your feedback on Project DCC. I neglected to mention the ability to control turnouts manually via pushbuttons because the functionality was not planned for use in Project DCC. In hindsight it would have been nice to include it in my overview of the accessory decoders. As I go back and review the documentation for the Digitrax DS64, Lenz LS150, and ZIMO MX82V, I find that all three support the ability to throw turnouts via manual pushbutton inputs. In the case of Digitrax and ZIMO, the input goes directly to the decoder that in turn throws the turnout. In the case of the Lenz, wiring diagrams in the manual show how to connect pushbutton inputs in parallel with the decoder. In other words, the decoder does not throw the turnout, but does support manual control. The difference is that both Digitrax and ZIMO decoders provide turnout position feedback, based on the throw command, whether issued by the throttle, computer, or manual input. The Lenz decoder, on the other hand, does not provide turnout position feedback at all, regardless of the method used to throw the turnout. So the true difference here isn't one of manual controlability, rather one of position feedback capability.

Regarding the use of Atlas under-table switch machines, thanks for sharing your club's experience with this product. Without a doubt there are under-table switch machine products available from other manufacturers (e.g., Circuitron Tortoise and Hankscraft Switchmaster), however, since Atlas was already providing track and other products for Project DCC, it was decided to use their under-table switch machine as well. Ultimately, it is not a question of which product you choose (that is up to personal preference and experience), as long as the product supports auxiliary contacts tied to turnout position. It is these contacts that Project DCC takes advantage of for trackside signaling. Stay tuned for Part 7B of Project DCC, coming in February 2009, in which we cover signal system wiring for the Atlas/Dallee portion of the layout, using the auxiliary contacts provided by the Atlas under-table switch machine.

Thanks again for writing Bob, and I hope you enjoy the Project DCC series. -Phil



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REVIEW HO

Walthers reworks trucks, power board on RS-2 and RSC-2

Review and Photos by John Sipple

RSC-2 diesel locomotive, MSRP: $94.98 - $104.98
RS-2 diesel locomotive, MSRP: $99.98 - $109.98

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By-The-Numbers
RS-2
Walthers, Inc
HO 1:87 • Type: Diesel
Traction Tires? No

Pull Power (Ozs @ Full Slip)

Pull	÷	Loco Wt	=	Efficiency
2.6		11.5		22.6%

Volts	Amps
12	0.21

Analog DC

Start Volts = 1.5

Volts	Amps	Scale MPH
1.5	0.2	1
6.0	0.2	31
12.0	0.2	68

DCC

Stall Amps (if applicable)

Speed	Step (of 128)	Scale MPH
Min	2	1
Mid	63	52
Top	126	94

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RSC-2
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Volts	Amps
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Start Volts = 4.6

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16.0	0.2	92

DCC

Stall Amps (if applicable)

Speed	Step (of 128)	Scale MPH
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REVIEW HO

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Here's a pair of deuces to draw to! The North Western RS-2 on top originally started on the Chicago Great Western and came to the North Western in July 1968. The Milwaukee Road RSC-2 eventually was equipped with AAR Type B, two axle, two motor road trucks, turning it into an RS-2.

Walthers hasn't painted any that way — yet.

The detailing is authentic and very well done. So what's the difference between the Proto 1000 and Proto 2000? The answer for our Proto 1000 locos is not in the motor and drive mechanism, which is constructed to the same standards as the Proto 2000. Part of it is the lack of a sound offering, not a bad call. Most of it, however, is in the shell itself. While the detail level is quite good with very fine handrails, cab glazing, and a fan grille that suggests the big, three-bladed fan, the ladder rungs up the end of each hood are not there.

A manufacturer has four choices when it comes to bitsy detail like this. The first is the most expensive: install it all at the factory. The second is to drill the holes and include the parts for the user to put on, the third is to mold them in place, and the fourth is to put dimples to mark the drill spot and let the consumer purchase his own hand rails and drill his own holes. This last is the Proto 1000 solution.

Yet another difference exhibits the lower-price 1000 series from the more deluxe Proto 2000s: road- and

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Closed Monday

For those who wondered when Walthers would migrate its wide gearbox, helical gear bottom end into three axles, the answer is: now! As with the B-truck version, these trucks are smooth as silk and quiet as Tuesday night in a small town. All-wheel electrical pickup joins all-wheel drive to make them solid workers.

era-specific detail. For example, all of the locomotives on the list are shown with the factory-delivered air-cooled exhaust stack, something that was changed in a few years. The air-cooled version has the long sides of the stack parallel to the rails below; the water-cooled is cross-wise. Our North Western model is Number 53, part of a group of eight that came from the Chicago & Great Western in the merger of July 1968. All were built in 1949 and came to C&NW with watercooled turbochargers. That's one example, and the Proto 2000 would be offered with the correct turbo orientation, along with fuel tanks, air reservoirs, and other issues.

The Milwaukee version, to reflect some of the later changes, would not only have the watercooled turbo, it also had two sets of multi-chime horns on the cab roof, one pointing each way. The bell was on the front of the long hood, and the hood fan shroud was raised an extra segment. The paint on our sample suggests an as-built version, and a photo of 979 in 1951 confirms the general detail, though the bell still hangs over the headlamp on the long hood, and the single chime horn is on the roof.

The lack of MU equipment is entirely accurate until the very later years when it would be added. The "wishbone" end stanchions pretty much prevent crossing from one loco to another, something necessary when two or more locos are lashed up. When MU was added, the wishbone handrails would be changed out. That means while our C&NW RS-2 and the CMStP&P RSC-2 might have sat on adjoining tracks, they would never have been operated together. Besides, Milwaukee 979 was scrapped in April 1968, several months before 53 came to the C&NW.

The RS and RSC models were essentially identical save for the trucks. Bells, horns, and other minor details told the difference between units on one railroad from the next. Our two samples are based upon the stock, as-built Giant Twinkies, a nickname awarded them due to their hood shape.

Tail-to-tail, our two Alcos join in a make-believe MU. One of the easier spotting signs between RS-2 and RS-3 (and RSC versions) is the tank filler on the side of the cab, as shown on both of these. The RS and RSC-3 had the fuel filler directly on the tank. Note the nice detail on the truck sideframes.

Operation

This is the principle reason for the review, to explore and expose what goes on under the shell. Changes are happening, and I consider them extensive enough to warrant a full review. First, not only does the RS-2 have the new, helical-geared trucks, so does the RSC-2, the first three-axle truck with the new helical gears. The performance of these trucks have been proven already, and so this shows the extent of commitment Walthers has made to the Proto 1000 line.

The second notable change is in the power board. Gone is the upside down plug arrangement and arrived is a new system. A small, separate board is screwed down to the chassis ahead of the main power board and connected by nine wires to a JST nine-pin plug and socket. Remove the two screws that hold the small dummy plug board in place, unplug it from the wiring harness, and replace the board with your decoder.

I found that if you intend to keep a decoder in this loco forever after, you might consider removing the screw towers that cause the decoder to stick up in the air. You can still get on the shell, but it isn't slick. I found that Xuron Nippers will clip those towers off without creating metal sawdust to get into the works. I covered the nubs with a small piece of electrical tape and then taped down the decoder as had been originally done.

I did the decoder installation on only the RSC because I wanted to have one to test for pure DC performance while the other tested the Analog DC side of a standard DCC decoder. In this case, I chose the very popular NCE D13SRJ, the letter "J" standing for JST socket to connect with the locomotive's JST 9-pin plug. That was fast!

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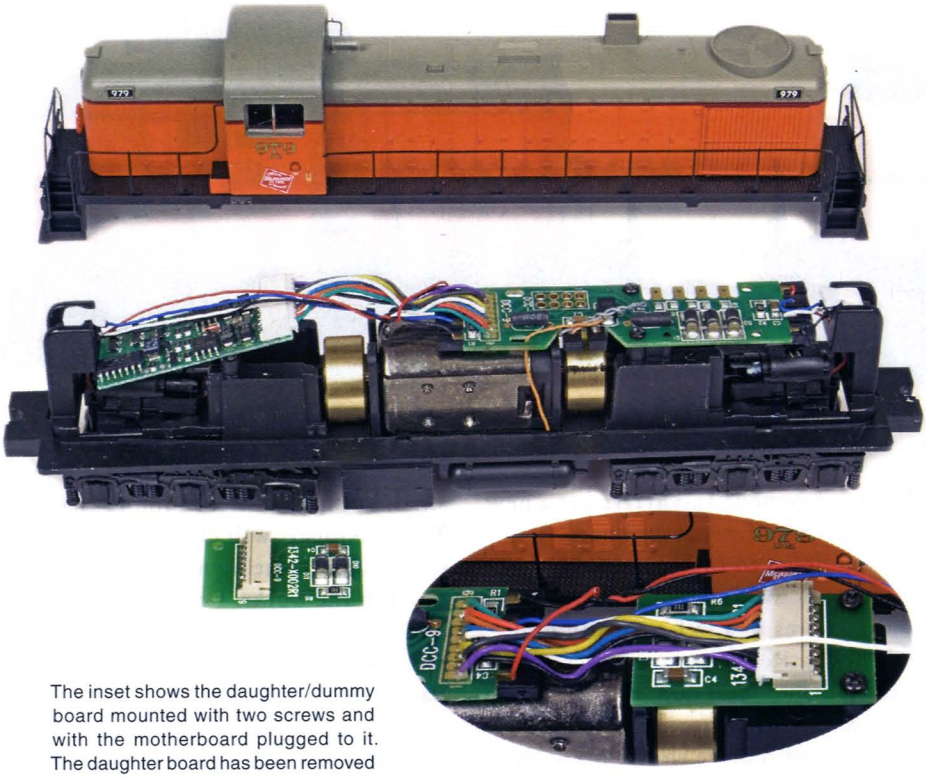


The inset shows the daughter/dummy board mounted with two screws and with the motherboard plugged to it. The daughter board has been removed and the NCE D13SRJ has had the power board plugged into it. It sits up at an angle due to the screw towers. You can tape it down to get the board level, or nip off the towers to let the board sit a little lower.

Pure DC operation is quiet and slick, in no small part because of the wide, helical gears. Because the gear teeth are diagonal to the face of the gear, that causes gradual contact without "gear slap." It also makes the teeth marginally longer to enhance that process. So one gear tooth has not yet quite given up contact when the next tooth starts contact. Small wonder this gear technology was also employed in America's nuclear submarines to help make them quieter.

I did run them together briefly before converting the Milwaukee unit to DCC. They ran very well together and MUed politely. This comes in part because Walthers has settled for the same gear reduction ratio in both machines and similar motor performance, thanks to the 5-pole, skew-wound motor. All wheels pick up power from the tracks and all axles are driven, even though the RSC models A-1-A trucks. I frankly appreciate the extra traction.

The new Proto-Max couplers work very well, in part because they are cast metal with metal coupler springs both for the knuckle and also for centering. They are easy to remove and reinstall, as they hold the shell on the locomotive.

DCC Installation and operation

Take off the couplers and the shell can be coaxed off, but be careful not to press in on the cab windows with your fingers. Inside is a new story on DCC installation. I have an older RSC-2 from Life-Like, and the power board is in approximately the form of a so-called "drop-in" board. It also features solder points and trace cut points, if you'd rather go that way. But that was then and this is now.

The new board is actually two boards, the main board and a daughter board that is actually the dummy plug for the JST 9-pin cable and plug. Two screws remove the dummy board and then the plug is coaxed out of the socket. With this completed, it's easy to insert the JST plug into the socket on your choice of decoders; I chose the NCE D13SRJ, an economy decoder with a lot of pluses.

Dummy board and decoder sit up into the cab area, and Walthers put a strip of electrical tape over the daughter board to obscure it; you'll probably want to do the same thing for the decoder. Since the screws aren't going back in, I nipped the screw towers off the chassis and laid down protective tape, letting the decoder sit a little lower.

With two locomotives, I exploited the relative differences of Analog DC with and without a decoder. The RS was tested without a decoder with just the daughter dummy board while the RSC had its decoder in place. You can compare and contrast both approaches; this is pretty typical of the losses in performance when running a silent decoder under DC. Top voltage in HO scale in Analog DC is 12 volts but with a decoder is 16 volts, accounting for the differences in top speed. The 6 volt speed was remarkably consistent.

When you install a decoder in any locomotive, you should always set the address number on a program track FIRST. If either the loco or the decoder is defective, the programming will fail without letting the smoke out. Once I had these locos both equipped with decoders, we found some differences along with the similarities. Both topped out about the same, for example, but starting performance was different.

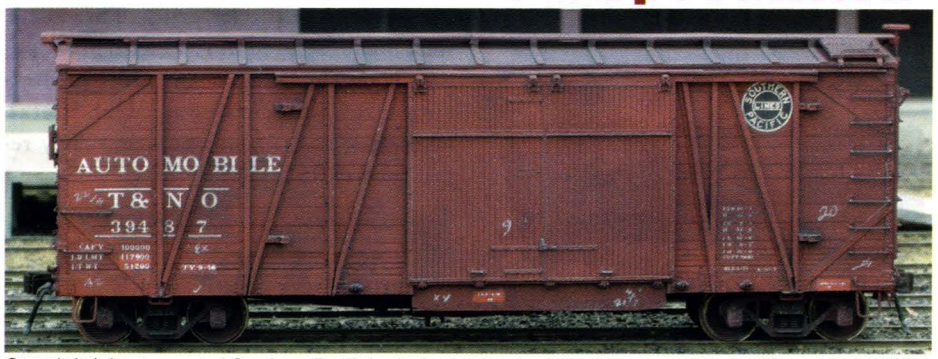
This, however, is right out of the box for locos and decoders. With a small amount of programming, both locos can start on Speed Step 1 at 1 scale mile per hour and mid-speeds can be matched. I set a pair of them up to work together, and I programmed them for that purpose. CV2 and CV6 were all I changed, and I had a pair that led a train with great slow speed and good, smooth high speed.

Two of these locos running together make less noise than one of some other pullers. The reversing headlamps are daylight white LEDs with good color and brightness. Both units operated flawlessly through curves, crossovers, and a variety of track issues, all without a single derailment from either one. Both had similar pull, and I had one of them tugging around eight feet of loaded double stack cars without any problem at all.

Alco-haulism

If you love your Alcos, here you go! Good looking models ride on the best gear mechanism around and employ a modernized power board system. This is a very good locomotive for a list price under a C-note and with an easy conversion to a low-priced decoder. With a large frame weight and a less-than-full-height hood, this isn't a very good candidate for sound conversion, but it's a great machine for the legion of HO scalers who just run straight DC or silent DCC.

Southern pacific and Texas & New Orleans A-50-4 from Speedwitch



Speedwitch has recreated Southern Pacific's single sheathed automobile cars in kit form. The model is said to include accurate details for both SP and T&NO variants of the car for auto loader and general service cars.

HO — Speedwitch Media has released a new A-50-4 auto car.

In 1921, the Southern Pacific added 500 single sheathed automobile cars from Standard Steel Car Co. The cars were delivered as SP 63080 – 63329 and Morgan's Louisiana & Texas 39410 – 39659 (ML&T; merged into T&NO in 1927.) The cars were delivered with a 10-foot 5-inch door opening and composite ends, including composite end doors in the A end. In 1934, the door openings were widened to 12-feet or 12-foot 6-inches (in an experiment, one car's door opening was widened to 13-feet.) The widening of the doors resulted in a narrow structural panel to the right of the doors with a more steeply angled zee-bar member.

In addition, the cars received new Dreadnaught ends and stiffeners under the door openings. At this time, the hand brakes were also powered through the use of gearing mechanisms added at the bottom of the brake staff. At the same time, automobile loading racks were installed. The removal of the racks occurred throughout the period leading up to the start of the war and after the war, the racks were not re-installed. The KC brake systems of the cars do not appear to have ever been replaced by AB brakes. No photos show such an upgrade and the cars were off the roster before the date by which cars had to be equipped with AB systems to be allowed to remain in interchange service.

When the door openings were widened, some of the cars were transferred from the T&NO to the SP into the two series of numbers in which they would ultimately reside. The T&NO cars were placed in the series 39410-39510. The SP cars occupied the series 63080-63328. While the T&NO series was exclusively comprised of cars with a 12-foot 6-inch door opening, the SP series was mixed with the majority having a door opening of 12-feet, but a little over 100 cars having a 12-foot 6-inch door opening (101 cars in 1943.)

When the door openings were widened and new ends added, the cars were repainted in the SP Lines standard scheme of the era. The car bodies were a medium oxide red and the SP medallion had a black background. The stenciling was simple, with Southern Pacific not spelled out anywhere. "AUTOMOBILE" was stenciled on the left portion of the side. The use of auto loading racks was indicated through the addition of a white band on the door, a white block with "36" located just below the band, and "AUTO RACK" stenciled just above the white band.

Speedwitch Media has released cars to recreate these interesting prototypes as rebuilt with 12-foot 6-inch door openings and Dreadnaught ends. The kits feature one-piece cast resin bodies, resin underframes, and details, wire and styrene detail parts and numerous etchings to recreate such details as the Carmer style uncoupling devices, end ladders, and tow loop castings. The accurate decals are based on Southern Pacific stencil drawings and included lettering for both SP and T&NO variants, as well as stencils for both auto loader and general service cars. Trucks and couplers are not included. The kit (#K118) retails for $44.00 each.

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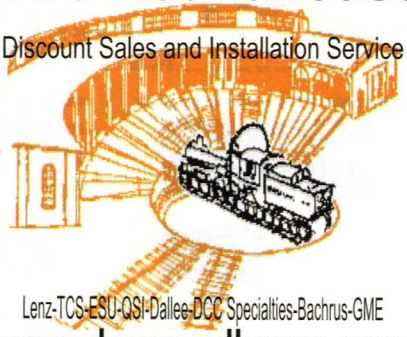
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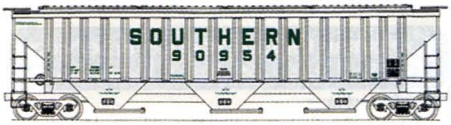
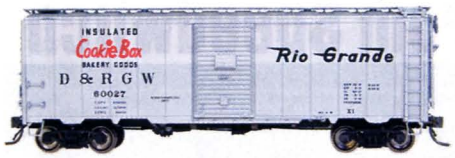
New rollingstock from Intermountain

HO — Intermountain has released three 4750 cubic foot three-bay hoppers, two 12-panel 40-foot boxcars, two plywood panel boxcars, two ATSF refrigerator cars, an ACF 4650 cubic foot three bay hopper, an R-30-18 refrigerator car, and three R-40-25 refrigerator cars. The cars are available in six roadnumbers.



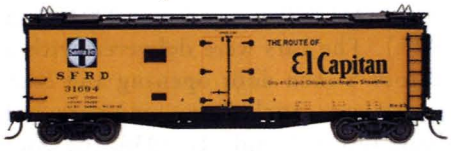
Three 4750 cubic foot three bay, hoppers have been released. Monfort Feed (#45316) is painted gray with black lettering, and is available in six new roadnumbers. Southern (#45349) is painted gray with Southern lettered in green and is available in six new roadnumbers. Toledo, Peoria & Western (#45389) is painted red and decorated in white, with the large billboard logo. The hoppers have etched metal roofwalks, metal wheelsets, and Kadee couplers. They retail for $29.95 per car.



Two new 12 panel 40-foot boxcars are now available. D&RGW (#46017) is painted silver with black lettering. The words "Cookie Box" are painted in red on the left of the car. Burlington Northern (#46019) is green and lettered in white. The large herald is found on the right end of the car sides. These cars are completely assembled with finely molded details, metal wheelsets, and Kadee couplers. The boxcars retail for $28.95 each.

Two plywood panel boxcars are now available for the following roadnames: Great Northern (#46051) is painted with black roof and ends, with orange sides and Pullman green lettering and trim; Great Northern (#46052) is painted oxide red with white lettering. These cars were manufactured in 1945 with plywood panels on the sides to save steel for wartime use. The cars come with metal wheelsets, and Kadee couplers. They retail for $29.95 a car.

An ACF 4650 cubic foot three-bay hopper has been released in new roadnumbers for Chessie System (#47040). The car is painted bright yellow with blue markings and sills, along with the repaint of CSXT. The famed Chessie cat is on the side. The hopper comes fully equipped with an etched metal roofwalk, metal wheelsets, and Kadee couplers. It retails for $29.95.



Two ATSF refrigerator cars have been released in six new roadnumbers. The first (#46107) has the "El Capitain" and "Ship & Travel" slogans on opposite sides of the car. It is painted yellow with black lettering. The second (#46108) has the "Grand Canyon Line" and "Ship & Travel" slogans on opposite sides of the car. It is painted yellow with black roof, ends, details, and underbody. The lettering is black and the

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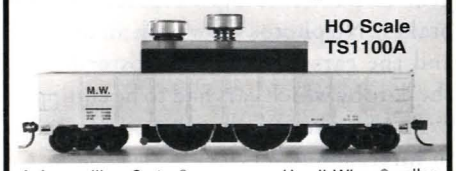

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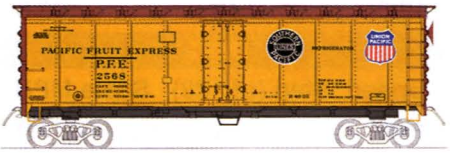
herald is black and white. The cars are completely assembled with finely molded details, metal wheelsets, and Kadee couplers. The suggested retail price for each car is $29.95.

An R-30-18 refrigerator car (#47403) has been released for Pacific Fruit Express in new roadnumbers. The car has an orange body with boxcar red ends and roof. The three-color Union Pacific herald and Southern Pacific herald are on each side. It is equipped with metal wheelsets and Kadee couplers. The car retails for $32.95.



Three R-40-25 refrigerator cars have been released. Pacific Fruit Express (#47420) is painted red oxide on the roof and ends, and has orange sides. Each side has both the SP and three-color UP herald. Pacific Fruit Express (#47421) is decorated in the later scheme with orange sides, black ends, and aluminum roof.

Three P-S 5277 cubic foot boxcars are now available. Burlington Northern (#47504) is painted green with a white BN logo. The model represents former Frisco cars with the Pullman-Standard door. CSX (#47511) is painted dark blue with yellow lettering. Chicago & Illinois Midland (#47516) is painted bright green with white lettering for C&IM. The boxcars come with wire and etched metal details, metal wheelsets, and Kadee couplers. They retail $31.95.

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Review and Photos by John Sipple

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Mid	64	133.2
Top	128	159.9

By-The-Numbers

FP45
Athearn
N 1:160 • Type: Diesel
Traction Tires? No

Pull Power (Ozs @ Full Slip)

Pull	÷	Loco Wt	=	Efficiency
1.4		6.1		23%
Volts		Amps		
10		0.19		

Analog DC

Start Volts = 2.8

Volts	Amps	Scale MPH
2.8	0.07	1.0
6.0	0.09	41.9
10.0	0.13	93.8

DCC

Speed	Step (of 128)	Scale MPH
Min	1	2.1
Mid	64	114.4
Top	128	162.3

SINCE the FP preceded the F in life, we'll start with that offering. Currently (pun intended), only the DC version is shipping of the F-Cowls in N scale. The F45 choices are: NYS&W, MRL, BN, GN "Big Sky," Santa Fe "Pinstripe," and undecorated. The FP45 is available in Milwaukee Orange, Milwaukee UP, Santa Fe Yellow and Blue Warbonnet, Santa Fe Red and Silver Warbonnet, and undecorated. Not all of these will be available until late spring, along with the Sound DCC versions.

EMD's Late-sixties Cowls

Santa Fe was the first railroad to order these late cowls, taking nine copies of the FP45; Milwaukee Road would take the other five. Santa Fe also bought 40 of the F45, and Great Northern soon added fourteen to their roster. The final original purchaser was BN, who took delivery of the remaining order for a dozen, only in their Cascade Green and black.

Athearn is offering this first run in Santa Fe, Warbonnet for the FPs and blue pin stripe for the Fs, Milwaukee for the FPs, and Great Northern's Big Sky Blue for Fs. There are a handful of other Santa Fe, orange and black for Milwaukee, BN green and black, and perhaps a dozen later owner paint schemes to add later down the line. If you can't wait for your favorite, Athearn also offers undecorated versions of each.

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It's clear to see the FP version is longer than the F. The FP45 is the cowl version of the SDP45 and has extra frame length and car body to hold a steam generator.

When the F45 was developed as an adjunct to the SD45, it had a shorter frame, body, fuel tank, and wheelbase, which the models display to perfection.

Darth Vader Eyes

Right out of the chute, our first factoid is that the FP45 was the first EMD locomotive to have "Darth Vader Eyes" windshields. The F45 was second a year later, and the DDA40X was third a year after that. Of course, several thousand SD70 series locos would reprise the design. While this may seem to be a trivial issue, one of the most important reasons for the FP45 cowl-body design was image. In this case, they were created for the always-image-conscious Santa Fe passenger service.

In a one-year time span beginning December 1967, General Motors' Electro Motive Division (EMD) delivered 14 FP45 locomotives, essentially an SDP45 with a wide cab and a cowl body. Railroads thought the idea had sufficient merit to warrant a freight version, dubbed the F45 that saw 86 units delivered between June 1968 and May 1971. There isn't much image

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consciousness about freight, so there had to be some other reason behind the freight version.

In fact, there were a couple of important reasons in favor. The first was that they were easier to work on enroute as opposed to having a hood door flapping in a sixty mile an hour wind while a crewman tried to keep from being pitched over the handrail as he fixed something. Great Northern found the F45 was a safer place to walk inside than the comparable SD45 catwalk would be out in the winter weather. The other was that the cowl version slipped more easily through the wind. At high speeds, this gave back urgently desired horsepower while offering nominal fuel economy improvement.

Of course, there were complaints against the cowl and the arguments for it. Major overhaul issues were complicated by the cowl body and the visibility out the back of the loco was as bad as out the back of any other F cab unit by EMD. The number of times crewmen needed to work on a loco in progress should be very restricted, and the horsepower liberated and fuel saved was negligible.

Athearn's Cowl F-units

The EMD cowl units were instant attractions for railfans when they first appeared and haven't lessened in their interest a bit over the years. Santa Fe was the first buyer, with nine FP45 units, complete with steam generators in a compartment behind the main radiator fans. Next came five FP45s bound for the Milwaukee Road. These were different from the first group; they didn't have dynamic brakes, so instead of five fans on the top, they only had three.

There have been rumors and footnotes that the Milwaukee version was 70-feet 8-inches across the coupler pulling faces while the other nine were 72-feet 4-inches, but a Milwaukee locomotive plan book from 1974 shows the plan length of the FP45 was 72-feet 4-inches, and that's what our Milwaukee unit represents. The F45 simply chops off the steam generator compartment, like an SD45, and comes out to be 67-feet 5.5-inches across the coupler pulling faces.

As always, we don't trust model couplers as holders of accurate length measurement, and so we use end plate, which for the F should be 63-feet 3.5-inches.

Milwaukee's numbers 1-5 were the only 45 Cowls to get UP paint but with Milwaukee lettering. It was very hard for an engineer to see out the back of these machines, so they weren't used much for switching, but they were excellent for road work.

Santa Fe wanted the F45 as a companion to its FP45s, equipping them with run-through steam lines so they could help out their bigger sisters. When both machines moved into freight work after the establishment of Amtrak, the F45 stepped right up and joined her SD45 sisters. The roofline is complete with the dust bin, the dynamic brake fan pair, and the trio of radiator fans.

As we can see from the roofline of the FP45, Milwaukee didn't choose to purchase the dynamic brakes. As a result, these locomotives went all their lives without them. You can clearly see in this view the vents and stacks of the steam boiler behind the last radiator fan.

Our sample measures right at 4.8 inches which translates to 64 feet, about 8.5 inches longer, that extra applied between the end of the trucks and the steps to prevent fouling around tight-radius curves. A similar situation exists with the FP, and the discrepancy is not perceivable in daily use with either loco. All other measurements are very close to prototype, and so the issue is how well these models represent these fantastically popular locomotives. The answer: Very well, thank you.

Our F45 is the Santa Fe blue pin stripe version, number 1936. It was renumbered to 5936 in 1970, received blue and yellow Warbonnet paint in 1972, was rebuilt and renumbered into SDF45 5986 in 1983, painted in Kodachrome SPSF merger colors in 1986, and was repainted to blue and yellow Warbonnet again in 1991. It

went to Morrison-Knudsen in 1994 but returned to the Santa Fe on lease and later went to BNSF on lease. Our sample would then represent the period from delivery in July 1968 until two years later in 1970 when it was repainted.

Milwaukee FP45 number 1 is done up in CMSt.P&P's Union Pacific paint for use on the UP run-through passenger business. As a result, you UP fans can run these girls, too. When Amtrak came along, Milwaukee followed Santa Fe's lead and kept these away from the Amtrak loco pool, converting them into freight locomotives. These locos originally had their 5,000 gallon fuel tanks subdivided with 3,000 gallons of fuel and 2,000 gallons of water for the steam generator. A carbody 1,000 gallon tank up inside held another thousand gallons of water. When they were converted to freight service and painted orange and black, the fuel tank subdivider was removed and the carbody tank was adapted to fuel, giving them a whopping 6,000 gallons of fuel capacity.

Our FP45 represents this locomotive from delivery in December 1968 until August 1971, by which time all five had been painted into freight colors. Number 1 was retired in 1982 while the other four made it to 1984; all of them were scrapped. Our sample follows Number 1's early career when she had no MU hoses on the front pilot, but a May 1971 photo shows her still in UP colors but with MU hoses on her front pilot, a sign she was ready for freight duty.

I like the fact that the lit number boards above the windshields on both models are done with legible white letters. At times, some model makers have produced number boards that, when not lit, don't show the number, which is not prototypically accurate. The Athearn N models are much better about that. It appears to my eye that the alignment of the number boards on the F45 is off just a bit. I didn't notice it in normal operation, but when I started get close with the camera, it became more obvious.

Operation

These are both a couple of smooth-running girls. I gave them a customary break-in at 8 volts for an hour each way, just letting all the operating parts get used to working with each other. Slow operation was excellent, with both of them running smoothly under two scale

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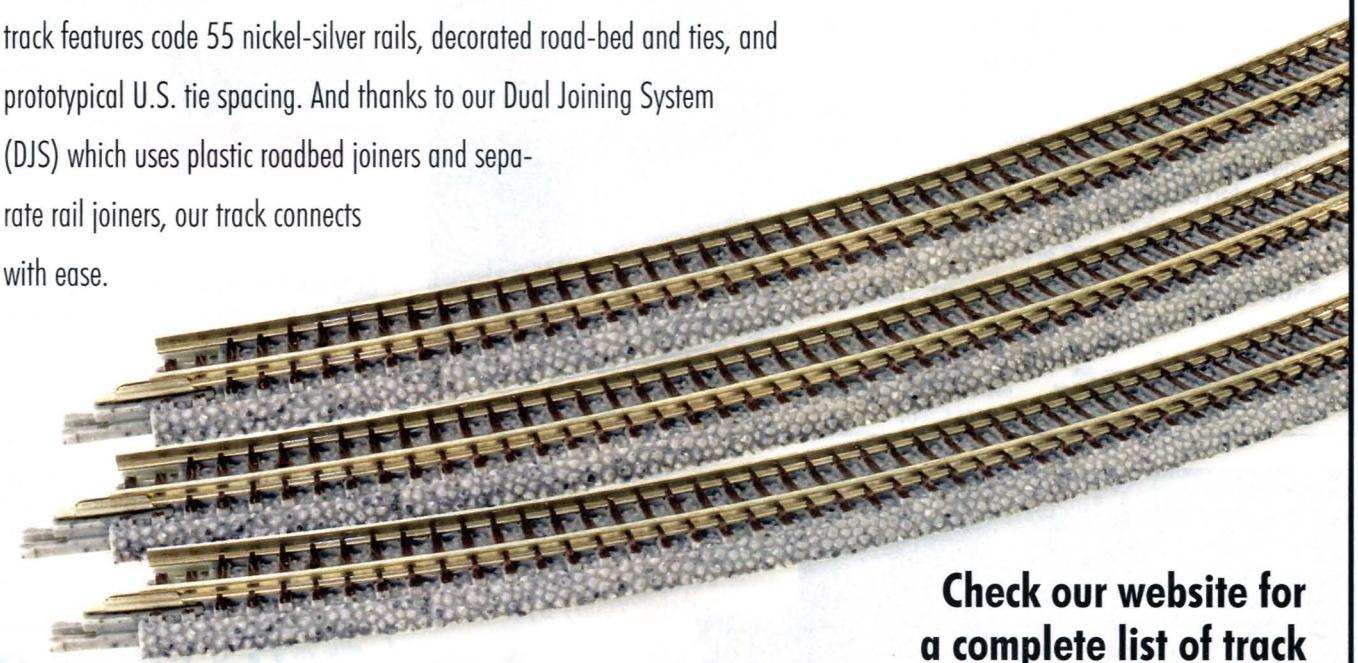

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Z SCALE 1:220

miles per hour, a good DC minimum on road locos. Both units are chunky rascals, being a couple of the heaviest single diesels we've tested, posting very respectable pulling numbers. Most of the time when these cowls were bested in terms of pulling power, it was by steamers with traction tires. So this kind of tractive pulling power on un-rubber-tired wheels is just superb.

It's worth noting that both locos have six wheel traction and six wheel electrical pick-up with both trucks, giving each one superlative consistency of operation, even on mildly dirty track. In the hours of break-in, we both cleaned off the wheels and the rails, so when it came time to test, all were ready to go. I found the girls worked very well together, especially on a train. We tend to look at the BTN differences between mid and top speeds and think they'd have trouble, but electric motors are prepared to give and take.

Seeing the Santa Fe and the Milwaukee units running together was rather goofy, since it is doubtful such a lashup would have occurred in real life. Still, the somewhat-faster FP and the somewhat-slower F worked very well together. I heard no wheel spinning and saw no arbitrating between the couplers, especially when they had to cooperate with a train on behind.

These were the first EMD locos to wear the "Darth Vader Eyes" windshield design that would soon after find its way into the DDA40X and later into countless wide-cab machines. Neither loco shows MU hoses on the nose, though both wore them. There are aftermarket solutions for this.

Top end speeds of ninety were possible for both prototypes, if the gearing was set up that way. The early deliveries of F45 to ATSF saw them equipped with high-speed gearing and run-through steam pipes to let them work on passenger service. Later, they would be geared lower for freight service.

Going inside for a look

I had thought to perhaps convert this pair to DCC, so the first step was to pull off the shell and see what was going on inside. I wound up calling Athearn to find out how the shell came off, since

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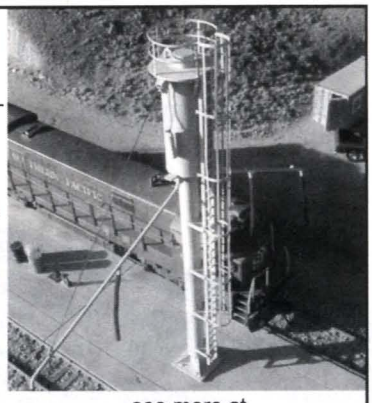

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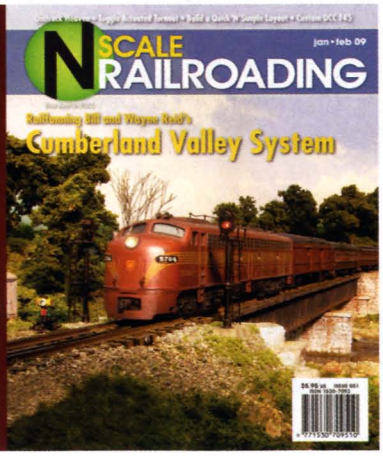

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there were no instructions or paperwork with either model. Unlike the majority of other manufacturer's diesels on the market that have the couplers coming off with the shell, the Athearn would have me removing couplers to get inside.

Getting them off was no problem; a small Phillips undid the screw that held each coupler assembly in place. Then I had to coax off the shell carefully, not a big problem. Inside, I found a split-frame N-scale diesel like so many others on the market. Two screws into nuts that sit in depressions in the diecast frames hold the frame together. Simply loosen these screws and the main power board would slip up and out. Piece of cake.

But before I took that board out, I sought a replacement from the DCC world. I started looking at the Digitrax models that had tabs sticking down to the motor contacts on the side of the motor. I finally centered my attentions on the DN163K1B which went right in, though reversed front to back. This means that the loco runs in reverse when put in forward and vice versa. That's easy enough to fix; just program CV29 to 7 if you aren't going to want DC operation or 39 if you do.

If you're used to putting Kapton tape on the saddle to prevent shorting of the decoder on other models, the Athearn F-cowls have a plastic saddle that automatically insulates the decoder. The motor pickups are simply the sides of the motors, meaning there are no tabs to get out of hand. When I had the decoder in place, I simply tightened the screws, closely inspected the installation, and then tried it before I put on the shell. Bingo but backwards; would that be Ognib? I set the decoder's address to [1], plugged the value 7 into CV29, and ran it around a bit. Then it was time to put it all back together again.

I'll have to admit I didn't care for the process of reinstalling the couplers, however. After much fooling around, using jeweler's tools, lots of light, an optical visor, and a foam cradle, I gave up and cheated. Each coupler assembly is made up of a box, a coupler, and a lid, all of which are tentatively grouped together, inserted into the loco, and then a small screw must be thrust down through the hole in the box, into the threaded screw receptacle, and tightened into place. I put the three coupler box pieces together, held them that way with tweezers, and used a 15 watt soldering pencil to weld the lid to the box on one side while holding them clamped together. After it all cooled, it all went together easily.

Out on the high iron, I suddenly had a different FP45. This one was a good deal friskier, simply because it was seeing 15.5 volts instead of just ten. As a result, we got unearthly speeds over 163 scale miles per hour and a mid-speed of 114! Well, this is why we have programming, so I worked CV5 down to 100 and CV6 to 75. This resulted in a top speed of 85.3 and a mid-speed of 53.9, much more in keeping with the prototype.

Since this loco has a speed step one at 2.1 scale mph, it's a good candidate for momentum. I set it for CV3=10 and CV4=5, just knocking the corners off starting and stopping. After ten minutes of programming, I now have a very sweet FP45 that goes forward when that is what is selected, doesn't run faster than the real thing, has a good throttle range, and features just a touch of momentum.

Then it was time to modify the F45. We still have the same coupler mounting, so I knew I'd face the same coupler issues. Getting in and installing the backward decoder (or maybe the decoder was right

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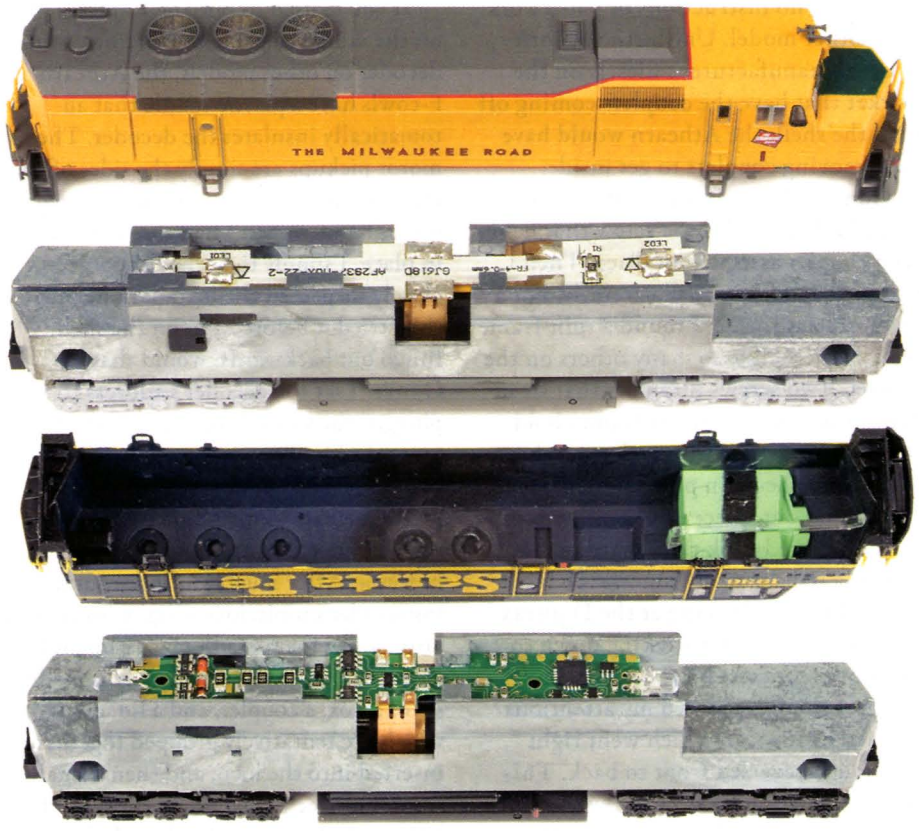
and the loco was backward) didn't take much time. The frame is just a compressed version of the longer FP, but the board mounting remains the same.

The F45 was remarkably similar, both in the installation and subsequent operation. The principle difference came when the loco went onto the tracks without its shell, and it didn't work! Imagine my disappointment. With some diagnostic work, I found that the two tabs that are the power pickups and fit into slots were not making good contact.

Back on the workbench, I considered those tabs and the fact that the slots on the frame really aren't designed for this purpose. Still, I only needed for the tabs to be a little bit thicker, so I removed the board and used my 15 watt soldering iron to add just a touch of solder on each tab, thickening each one a bit. That did the trick, and I ended up with a very lovely locomotive.

As the BTN numbers for pull suggest, the F45 won't pull as many cars as the FP45. Our test layout has a rather steep flyover that had the F45 slipping with 24 cars while the FP45 handled thirty. The F45 had no trouble handling the 30 cars on the flat, around curves and such. I also MUed the little rascals together, and they were (and still are) great. Interestingly, when the two of them are working together with a fairly heavy train, they will start and steadily pull the train at about a half scale mile per hour.



The FP on top still wears its factory DC board while the F below shows us the Digitrax DN163K1B — backwards! The inverted F45 shell shows the cab box and the light pipe that carries the LED's light to the nose, the number boards, and the eyebrows, as the prototype requires.

Cowl me

What I learned from operating these wonderful locomotives are that two of them is more fun than one. They really are beautiful models with very authentic modeling, painting, and detailing. They run very well, though the DCC side wants to be toned down quite a bit. Why they made a board mount so much like the DN163K1B and yet turned it around backwards and didn't implement the tabs correctly is quite beyond me. Still, the DC version converts to DCC quite easily, so now I wait impatiently for the Sound/DCC versions.

New Dash 8-40CW announced from Atlas

HO — Atlas has announced the May 2009 release of a 4,000hp Dash 8-40CW. The locomotive was produced by General Electric between 1989 and 1993 as a follow-up to the successful Dash 8-40C locomotive.

According to the company, the most distinguishing feature of the Dash 8-40CW was the introduction of GE's version of the wide-nose "North American Safety Cab." This style of cab would become a common sight on railroads across the country. Four major railroads purchased the Dash 8-40CW in fairly large quantities, including Conrail, CSX, Santa Fe, and Union Pacific. Most of these units are still in regular mainline and heavy-haul freight service today. Due to the various mergers, they can also be seen operating for new owners Norfolk Southern and BNSF.

The locomotive will be available in the following roadnames: Undecorated – CSX/UP style (#51900), undecorated – ATSF style (#51901), undecorated – CR style (#51902), Conrail Quality painted blue and white (#51903 – #51905), CSX decorated blue, yellow, and gray (#51906 – #51908), Santa Fe painted red, silver, and yellow (#51909 – #51911), and Union Pacific decorated yellow, gray, and red (#51912 – #51914).

The Dash 8-40CW will be DCC-ready and will be available in a DCC-equipped-version. It will features decoder-equipped units powered by NCE decoders, illuminated ditch lights in analog, operational ditchlights in DCC (on/off/alternating), directional lighting, golden white LEDs, separate coupler cut lever, blackened metal wheels, dual flywheel-equipped 5-pole skewed armature motor with a low friction mechanism, and factory-installed AccuMate magnetic knuckle couplers. The locomotive will retail for $139.95 for DCC-ready models and $179.95 for DCC-equipped versions.

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Micro-Trains' releases new State Series car in Z, Presidential car in N

New models available in Z, N, and HOn3

Z, N, HON3 — Micro-Trains has released several new cars in Z-and N-scale, along with a new flat car in HOn3. The ready-to-run models are now available from your local hobby shop.

Z-Scale

A new 40-foot standard boxcar with plug door has been released for the state of Virginia. The model is the sixth of a 50-car series representing each of the 50 states in the union. It bears the Western Meadowlark and Dogwood flower, Virginia's official state bird and flower. The flag of the state of Virginia is in the background. The roadnumber, 1788, represents the year 'The Old Dominion State" was admitted into the union. The boxcar (#502 00 506) retails for $22.95.

Two new PS-2 two-bay covered hoppers have been released, and are painted gray with black logo and lettering for New York Central. They were built in June 1956, serviced in March 1962, and run on Bettendorf trucks. The principle commodity handled is cement with typical lading including cement, sand, potash, soda ash, lime, alumina, fertilizers, dolomite, soap, salt, plastic pellets, and flour. Since many of these materials were highly corrosive, the two-bay hoppers are designed to withstand the inherent effects and keep maintenance regulations to a minimum. The hoppers (#531 00 101& #531 00 102) retail for $19.15.

New 40-foot standard boxcars with single doors and no roofwalks are available for Rock Island, and are painted sky blue with black and white logos and black lettering. The cars were built in December 1951, serviced in June 1975 and run on Bettendorf trucks. In June 1975, to improve the Rock Island image, 736 cars were re-built by USRE (United States Railway Manufacturing Co.) and painted into the new "ROCK" Sky Blue paint scheme. The boxcars (#503 00 041 & #503 00 042) retail for $22.60.

A set of 40-foot standard boxcars with double doors are now available for Union Pacific. The cars are painted gray with the red *The Challenger* logo and yellow lettering, were built in September 1939, and run on Roller Bearing trucks. With the trucking industry becoming a threat, the UP needed to retain business where the haul was less than 500 miles. This created the "Over Night Delivery" concept — to meet the demand for next day delivery. The UP called it their "Challenger Merchandise Service." The cars were to travel with passenger trains between terminals. Since they were used in special service with passenger freight, the paint scheme had to match with the passenger color scheme and yet be distinctive enough for the UP personnel. The boxcars (#501 00 191 & #501 00 192) retail for $32.85 per car.

N-Scale

Two new Northern Pacific two-bay ACF covered hoppers with round hatches are now available. They are painted light gray with black logo and lettering for NP. The cars were built in November 1967 by American Car & Foundry and run on Barber Roller Bearing trucks. One hundred of these hoppers were built for NP, intended for cement service. The large billboard Northern Pacific herald was in use between 1965 and 1969. The hoppers (#092 00 231 & #092 00 232) retail for $22.35.

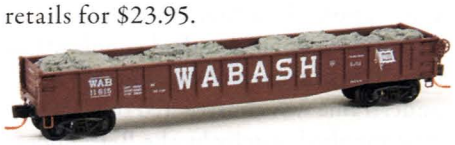
A new 40-foot steel side reefer with Preco fan has been released, and is painted boxcar red with yellow sides for American Refrigerator Transit Company. The heralds are red, white, and blue with the main lettering in black with white end lettering. Built in February 1957, this reefer runs on Bettendorf trucks. The American Refrigerator Transit Company (ART) was a St. Louis, Missouri-based private refrigerator car line established in 1881 by the Missouri Pacific and Wabash railroads. It is now a subsidiary of the Union Pacific Railroad. The reefer (#059 00 506) retails for $25.70.

A 50-foot flat car with fishbelly sides and tarp-covered load is painted black with white lettering for the Atlantic Coastline. It was built in 1943 by Pullman-Standard and serviced in June 1973. It runs on Bettendorf trucks. Built during the war, this steel underframe car with wood floor proved to be a solid design. After transporting military machinery and equipment for the war effort, they were assigned to various services and ran the rails into the 1980s, many in maintenance-of-way. The flat car (#045 00 350) retails for $16.95.

A new 56-foot general service tank car is now available, painted black with gray bands for Atchison, Topeka, and Santa Fe. It bears large white logos and lettering and runs on Barber Roller Bearing trucks. Tank car indication bands circa 1970 indicated the cargo the tank was carrying. The colors were as follows: diesel fuel, gray; gasoline, red; car journal oil, yellow; water, green; diesel lube oil, yellow trimmed with gray;

reclaimed lube oil, yellow trimmed with green; and solvents, red trimmed in yellow. The gray band on this car indicates it was used in diesel fuel hauling service. The tank car (#110 00 120) retails for $29.65.

A new 40-foot standard boxcar with plug door and no roofwalk is the fourth car of a 44-car series representing each of the presidents of the United States. It bears the portrait of our fourth president, James Madison. The car comes with a commemorative pin replicated from that era. James Madison served as the youngest member of the Continental Congress at age 29, representing Virginia. He is often referred to as "Father of the Constitution" for his influence on the nation's fundamental laws. The boxcar (#074 00 104) retails for $23.95.



A 50-foot gondola with fishbelly sides, drop ends and a crushed metal load is now available, and is painted boxcar red with white logo and lettering. It was built in August 1944, serviced in September 1964, and runs on Bettendorf trucks. The Wabash served the heart of America (nine states and the Province of Ontario). Major centers included Omaha, Des Moines, Kansas City, St. Louis, Chicago, Decatur, Fort Wayne, Toledo, Detroit, and Buffalo. In order to shorten the journey between Detroit and Buffalo the Wabash cut across southern Ontario for some 250 miles. The gondola (#046 00 270) retails for $19.85.

A 40-foot double-sheathed wood reefer, has been re-released as a reprint for Western Pacific/Pacific Fruit Express. It is painted reefer orange with brown roof, ends, and hardware. The car bears black-and-white heralds and black lettering. It was built in May 1924 by American Car & Foundry, serviced in April 1939 in Los Angeles, and runs on Bettendorf trucks. These were ordered by WP and delivered as PFE 52001 – 52775 wearing PFE paint and WP's Feather River heralds. The cars were reconditioned in April of 1939. By the mid 1950s, the cars were ready for rebuilding again. The reefer (#047 00 290) has a retail price of $20.25.

A 39-foot single dome tank car has been reprinted for Canadian National, and is painted red with white lettering. It was built in May 1960, pressure tested in December 1978, and runs on Bettendorf trucks. This tanker works in Maintenance-of-Way service, hauling diesel fuel. The sides and ends are stenciled in white with safety warnings "Close Tank Valve Before Moving Car," "Diesel Fuel Only," and "Inflammable." The tank car (#065 00 560) retails for $19.80.

HOn3

A new 30-foot flat car has been released, painted boxcar red with white lettering for Denver & Rio Grande Western. It was seen running the rails throughout the southwestern U.S. on Bettendorf trucks. This series of 100 30-foot flat cars was built during the late nineteenth century and was numbered from 6000 to 6099. The railroad soon found they required cars with greater capacity and cars in this series were replaced with heavier capacity cars as needed. Some of these were still on the rails into the early 1940s. The flat car (#855 00 031) retails for $32.90.

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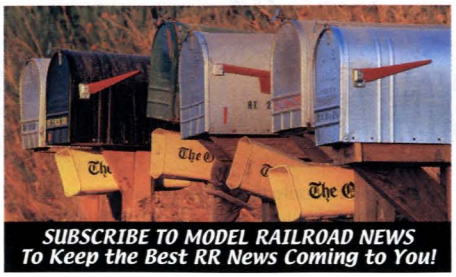

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REVIEW O

MTH's CA-1 Caboose: It's Headed in the Right Direction

Review and Photos by David Otte

CA-1 Wood-sided Caboose MSRP: $59.95

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CABINS, Crummies, Hacks, and Waycars: it doesn't matter what you call them, in my book, a train just isn't a train without a caboose on the end of it. While in today's reality the sight of a caboose bringing up the rear of a freight consist is very rare, at least we can continue to imagine in our model railroad world that the end of the train doesn't have to be simply a blinking red light. However, for O gaugers in particular, the number of available prototypical cabooses on the market is small, especially when it comes to those based on wood-sided cars. That's why when a new 1/48-scale model of a wood-sheathed caboose is announced, such as MTH Electric Trains' new CA-1, its certainly an occasion to relish.

Currently, MTH is offering the caboose for 3-rail operation only and decorated in three different Union Pacific schemes as well as for similar-looking wood cabooses operated by the Chesapeake & Ohio, Norfolk & Western, Erie, New Haven, Long Island, New York Central, Seaboard Air Line, and Spokane Portland & Seattle. Each roadname is available in two different roadnumbers.

The Union Pacific's CA-1 Class Caboose

Edward Henry Harriman instilled a new standardization unlike anything the industry had seen before during his reign over the Union Pacific, as well as the Southern Pacific, at the turn of the Twentieth Century. From locomotives to rolling stock to rail, the innovative president of the UP tamed this ever westward expanding, rowdy railroad into an organized and efficiently running machine. Even after his untimely death at the helm in 1909, the UP maintained his policies seeing it through the many growing pains experienced during the past 100 years. No better proof of this ingrained standardization was in the category of UP's cabooses, the largest class of which was the wood-sided CA-1 class.

The first CA-1 caboose was built for UP subsidiary Oregon Short Line in 1914. Over the course of a decade, five different car builders and the railroad's own affiliated shops would build a total of 380 of this class. The manufacturers included Standard Steel Car Company, The Pullman Company, Mount Vernon Car Company, American Car & Foundry, and Pacific Car & Foundry, as well as the Oregon-Washington Railroad and Navigation Company's Albina Shops and the Los Angeles & Salt Lake's East Los Angeles Shops. By 1925, the fleet of CA-1 cabooses was divided among the UP's family as follows: the UP proper operated numbers 2525 – 2699 and 3200 – 3274, OSL 3148 – 3192, LA&SL 3340 – 3363 and 3373 – 3420, and the OWR&N 3619 – 3631.

A quick walk around the prototype yields a good description of what should be expected of an O-scale replica. The CA-1 had a wood sheathed carbody measuring 30-feet 1.5-inches in length with 27-inch wide-open platforms at either end. On the sides of the body were three single-sash, single-pane windows, two to the rear of and one forward of the cupola, as well as a window on each side of both end doors. The rounded roof measured 34-feet 10.75-inches over the ends and supported a 6-foot 1.5-inch long slope sided, wood-sheathed cupola offset two inches forward of car center. The underframe was constructed of riveted steel supplied usually by the Bettendorf Company with an 18-inch center I beam and eight-inch I beam crossbearers while the platform end sills were formed from eight-inch channel beams. Finally, as delivered, the cars rode on Andrews, Bettendorf, or Vulcan steel trucks.

A few variations did exist among the CA-1 class as is evident from photographs, which includes a relatively small

The CA-1-type car, as modeled here by MTH Electric Trains, was not only the last representative of the wooden cabooses built for the Union Pacific but, with 380 built between 1914 and 1924, was also the largest class on its all-time caboose roster. Some minor variations regarding the cupola and the use of toolboxes did exist, but for the most part the CA-1 design was strictly adhered to during its years of production. Subsequently, the class saw only minor changes during its service life: a true testament to its solid design. Note the numerous details such as the handgrabs, steps, and trucks.

number of cars equipped with different cupolas, underframe toolboxes, and side doors for mixed train service. On the other hand, some of these deviations from the standard plan occurred later in the cars' lives such as after a rebuilding or, in the case of the side door modifications, made as dictated by local operating circumstances.

However, the most significant alteration to these crummies as a group was the change over to using wood-beam trucks. Due to complaints from crews of the rough riding conditions of these newer steel framed cabooses, the railroad began a program of swapping out the steel truck designs with wood beam passenger trucks, known as Q trucks, that had been used on the early wood-framed caboose designs then being scrapped. Throughout the 1940s and 1950s, the CA-1 class received the recycled Q trucks, which were of a composite wood, usually white oak, and metal construction with a wheelbase measuring 5 feet.

Seen system-wide, the CA-1s experienced a long service life that stretched into the 1960s. The wooden caboose era ended for the most part on the UP in 1968 with the very last CA-1, number 25766 (formerly 2624), a sidedoor caboose, being retired in 1971. It was kept for historical purposes by the railroad until being donated to the Utah State Railway Museum in Ogden, Utah, where it reportedly still resides today. Other survivors of the class have been spotted in varying conditions from Missouri to the West Coast.

MTH's Interpretation of the CA-1

With a ruler, drawings, and photographs in hand, we're ready to inspect the MTH rendering. First of all, this new offering is an O-scale model despite the tinplate wheels and couplers. All its general dimensions closely follow those of the prototype's to within scale inches. For example, at 10.5 inches or 42 scale feet long including the oversized couplers, it's true that the MTH car is longer than the 38-foot 11-inch recorded length of the full size CA-1, but the model's carbody measures an accurate scale 30-feet 3-inches in length – only 1.5 scale inches over the prototype. Other dimensions including height, width, wheelbase, and the like are within similar tolerances.

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The UP started applying safety slogans to the white washed sides of their cabooses in the early to mid 1950s. MTH has expertly recreated car number 2654 as it appeared in the spring of 1955 wearing the slogan "MAKE COURTESY CONTAGIOUS" along the upper portion of its sides. Note how the cupola and car ends retained their Armour Yellow paint — the body color adopted by the railroad in the late 1940s. Interesting as well is the railroad's practice of referring to the front of their caboose as being the end closest to the cupola. On the CA-1, this means that the end with the two side windows should be facing the rear. MTH has done their homework in regard to this bit of trivia and has placed the marker lights on the correct end of the caboose and positioned the crewman in the cupola facing forward looking out over the tops of the freight cars.

board-by-board sheathing on the sides and ends with a nice wood grain finish visible as well. Windows, with clear glazing, are all present and properly located, as is the cupola on the separately applied roof. Wire handrail and various handholds have been added to the body, as have wire bars across the windows on the car ends. Supports, also made of wire, have been positioned between the cupola end walls and roof as well as those sustaining the hand-applied smokejack. The cupola side windows are outfitted with sunshades too, as commonly found on many of the real cabooses.

Separately applied, three-board width roof walks have been installed on either side of the cupola positioned on the raised supports molded into the roof. The roofwalks also display excellent wood grain finish and fastener detail. The end ladders lead down to the integrated end railing assembly, which boasts the proper channel-shaped end sill arrangement and vertical staff with add-on brake wheel.

The end platforms show wood planked decks as well as the correct four-tread, steel-type platform steps.

The underbody is equally well detailed with plastic car floor displaying wood grained boards, the prototype's center and crossbearer I beam construction, full brake gear with cylinder, triple valve, air reservoir tank, air lines, and linkages present, and train line air hoses running along side the diecast metal knuckle couplers. The CA-1 rides on wonderfully detailed, diecast metal Q trucks with the proper five-scale-foot wheelbase, add-on coil and elliptical springs, and applied strap iron lower support.

Finally, the caboose includes some interior detail too, although it is difficult to appreciate viewing through the rather small windows. The interior, molded in gray plastic, displays the various bunks, seats, storage lockers, and potbelly stove one would expect to see in this trainman's home away from home. Furthermore, a hand-painted, seated crew figure in typical railroad attire inhabits

The cupola and car roof is also well-detailed and is enhanced by separately applied rooftop railing held in place with miniature eye bolts, window glazing, sun shades, metal end wall supports, add-on roofwalks, and a smokejack. Barely visible here through the rear cupola side window is the hand-painted trainman figure that occupies this crummy.

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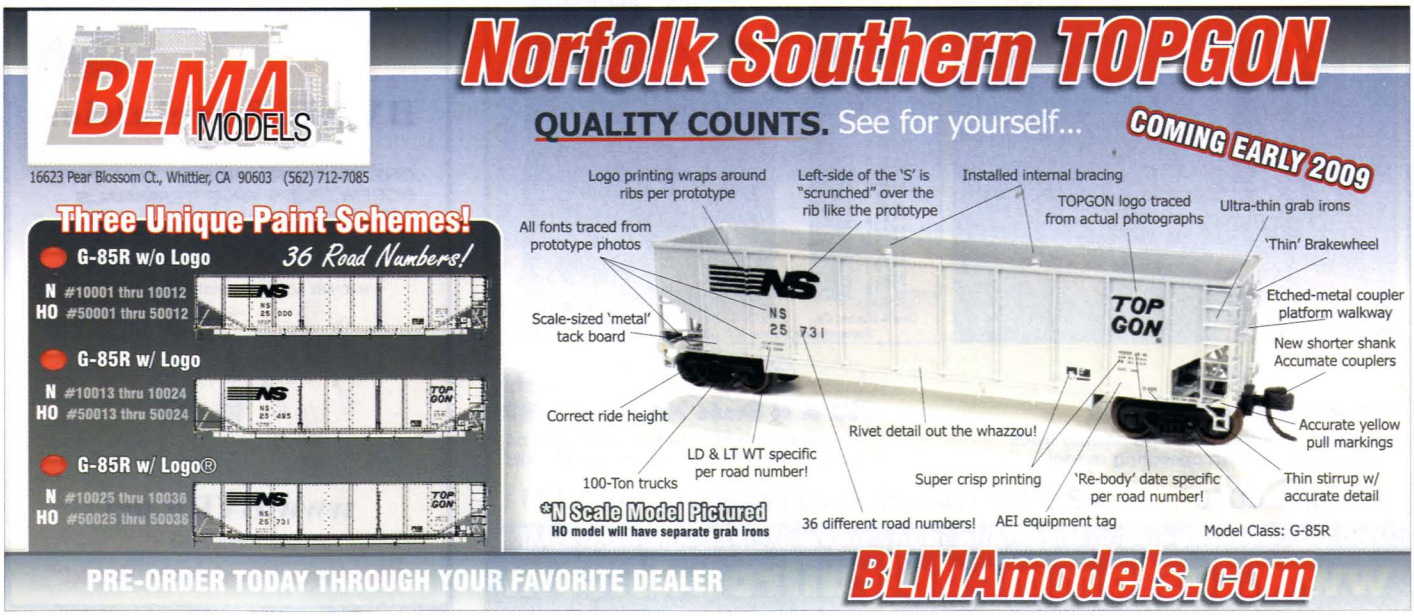
the cupola, keeping a watchful eye on the rear of the train.

The decoration on the CA-1 sample MTH sent us was first-rate. The paint version before us depicts caboose number 2654 in the unique white-sided safety slogan scheme. Built by Mount Vernon Car Company in May of 1923, number 2654 received its pair of Q trucks in January of 1941 and by spring of 1955 was displaying white sides and the slogan "MAKE COURTESY CONTAGIOUS" above the side windows. This caboose was later retired in May of 1963, never receiving a new five-digit number as instituted by the UP starting in April of 1962.

The manufacturer has hit the mark with their rendering of this car. In comparison with a color photograph of 2654 dated May 1955, the paint and lettering job is almost on the money including the repack data (when and where the journal bearings were last repacked) shield on the lower car side. The application of the various colors is virtually flawless and the lettering sharp, although the lettering's color doesn't quite penetrate the crevices formed between the boards making up the side sheathing. Also, the slogan's black color is questionable based on recorded practices as mentioned earlier, although I could not determine from the color photo I referenced whether the lettering on the prototype was truly a very dark green or black, so I will give MTH the benefit of the doubt on this detail. However, I must cite them on one minor discrepancy and that is the fact that they painted the end platform deck and

The MTH CA-1 displays excellent details both molded into the ABS carbody shell as well as those that are hand-applied. The wood sheathing of the car ends and sides, for example, exhibits individual planks with wood-grain finish while the ladder and end rail assembly is an add-on part as are the wire handholds, end window safety bars, and handbrake wheel. Following very closely to the scale dimensions of the prototype, the model features bright, interior illumination and working marker lights.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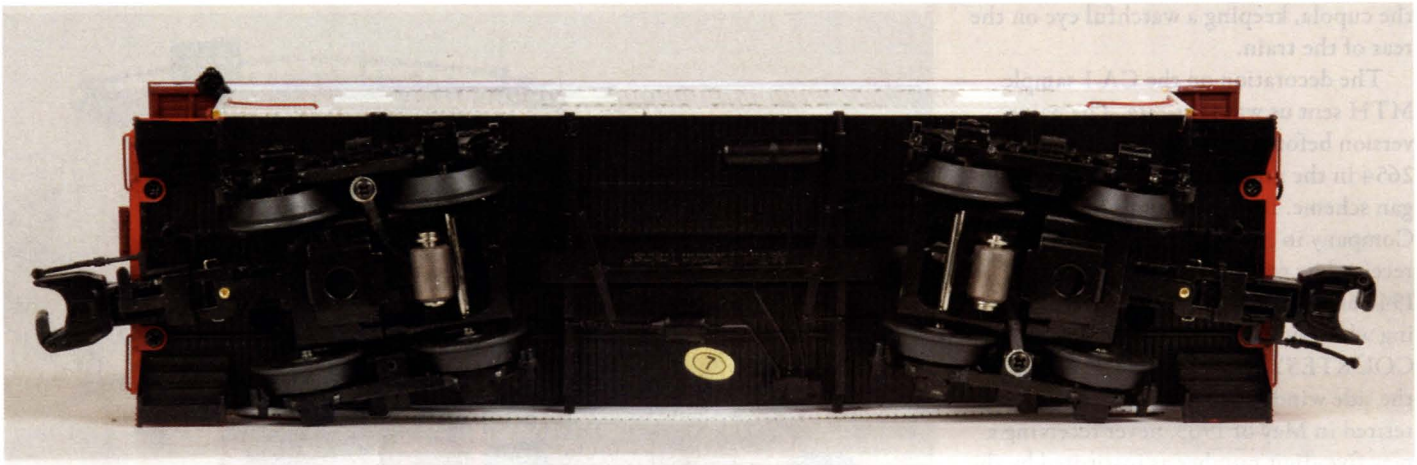

MTH hasn't ignored the underbody of their CA-1 either, endowing it with excellent details such as wood plank flooring, full brake gear, and I beam center sill and crossbearers replicating the steel underframe. The diecast metal trucks include hidden uncoupling tabs for the working knuckle couplers — all of which are articulated in such a fashion as to allow the car's operation on tight O-31 diameter curves. Note the center rail roller pickups, insulated wheel sets, and circuit wiring to the sideframes for the onboard lighting system, as well as the trainline air hoses running along side the coupler shanks.

steps bright red instead of the maroon color per UP practices at that time.

Finally, we come to the operational qualities of this model CA-1. Weighing in at a respectable 1 pound 2.6 ounces, the model will successfully traverse O-31 diameter curves. The operating couplers, which are truck-mounted and have articulated shanks for even more flexibility on tight curves, are operated with hidden uncoupling tabs located underneath the trucks and worked well during my test runs. The metal wheels and axles were very free rolling and no operating anomalies were encountered. The car is equipped with bright interior lighting too that is track-powered though the insulated wheel sets and the center rail roller pickups on each truck, which insure constant illumination while in motion.

Last, but not least, the caboose is outfitted with a pair of working marker lanterns showing red to the rear and green to the sides. What's noteworthy about this feature is their placement on the car. According to UP practices on wooden cabooses, the end furthest away from the cupola was the rear end of the car. So on the CA-1, that meant the two-side-window end should have been facing the rear and therefore the end that received the marker lamps. MTH did their research and got this detail correct too and even has their cupola occupant facing the front to watch over the top of the freight cars.

MTH Has Their Bearings Straight

MTH's caboose is heading in the correct direction in more ways then one. Despite their little faux pas regarding the paint scheme, MTH is to be congratulated and appreciated for issuing this fine scale replica of a rather historical caboose. The CA-1 rendering suggests MTH is definitely on the right track in my book and genuinely listening to those of us in the O-gauge crowd who are seeking quality-crafted, ready-to-run, 1:48-proportioned models of steam-to-diesel transition era, wood-sheathed cabooses. I for one look forward to their next wood-sided caboose prototype!

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New Brass F6a to grace O-gauge railroads

O — Weaver Models has announced the Milwaukee Road F6a as their next Brass O-gauge Steam Engine release. According to the manufacturer, the limited edition engine will feature 1/4-inch scale dimensions. The brass body construction will feature an authentic paint scheme with multiple cab numbers and a powerful Pittman Can Motor with flywheel coasting. The number boards will be illuminated.

Other features are said to include: constant voltage headlight, constant voltage backup light, front operating classification lights, sprung drive wheels, operational cab vent, prototypically correct cab curtains, firebox glow, illuminated cab, modern sheet metal pilot mounted with the boiler tube pilot included, TA Studios fan driven smoke unit, and opening tender hatches allowing for easy access to the volume control with sound on/sound off switch.

The F6a is offered in 2-Rail without sound for $995.00, as well as 2-Rail (AC) or 3-Rail with RailSounds and TrainMaster Command Control for $1,095.00. Sound-equipped models also feature Engineer on Board Speed Control. 3-Rail with sound models also feature a rear electronic coil coupler.

Weaver Models, P.O. Box 231, Northumberland, PA 17857-0231; 570-473-9434; Fax: 570-473-3293; E-mail: customerservice@weavermodels.com; www.weavermodels.com

New B&O twin hopper released from Accurail

HO — Accurail has announced that a B&O 55 ton twin hopper (#2605) is being offered in a limited supply. The hopper has been released in a six-pack and retails for $67.98.

Now available are the following: a C&NW ACF three-bay covered hopper (#2088) painted blue and retails for $13.98; a M&StL 50-foot riveted plug door boxcar (#5125), painted red, for $12.98; CstPM&O wood stock car (#4728) retailing for $12.98; a GB&W 40-foot PS-1 steel boxcar (#3443), it retails for $12.98; a CN 40-foot plug door boxcar (#3118) decorated with the worm logo, for $12.98; and a BN 50-foot double plug door riveted boxcar (#5404) in the new body, which retails for $12.98.

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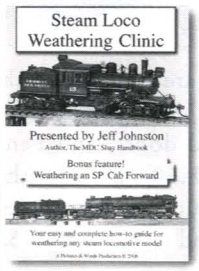

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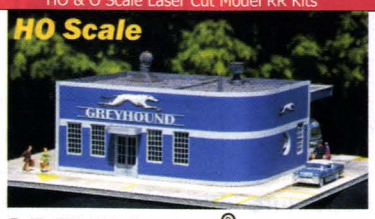

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HO Scale Models

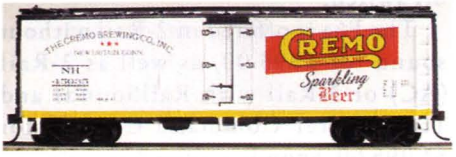
Greenway products announces two new historical brewing industry cars

HO — Greenway has recently completed two new brewery cars in their series of model billboard reefers covering the historical development of the brewing industry in the United States. The two cars are: Five O'clock Beer brewed by the A. Gettleman Brewing company of Milwaukee, Wisconsin, and Cremo Sparkling Beer brewed by the Cremo Brewing Company of New Britain, Connecticut.

Five O'Clock was one of many brands created and offered by Gettleman during a long and successful history that lasted from 1847 through 1970. Gettleman even survived difficult times during prohibition by making malt beverages for themselves and others. The company was acquired by Miller Brewing in 1961, but continued marketing under its own name until 1970. After that, the Gettleman brands were discontinued, much to the consternation of remaining fans in the Milwaukee area.

Cremo Sparkling Beer enjoyed a similarly long history but was not as widely known or advertised. The Cremo Brewing Company in New Britain was established in 1905 and operated as a regional brewer for another 50 years. The last known shipment was in 1955 and the history of the brewery after that seems to be lost. At any rate, a once popular brand was nowhere to be found on shelves or in bars following the last days of the Steam/Diesel era.

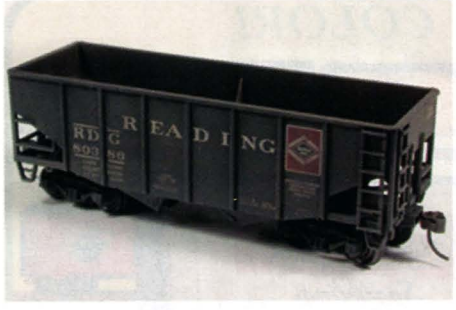
Both of the cars are printed on Athearn refrigerator car kits. They are offered in limited runs for $18.00 each.



Greenway Products, 139 Ramsey Rd, Ligonier, PA 15658; 724 238-6268; www.greenwayproducts.com

New weathered freight cars from Bowser

HO — Bowser has released new weathered freight cars. The ready-to-run models are available for 55 ton fishbelly hoppers, 55 ton peaked end fishbelly hoppers, and K-9 stock cars.



Five new 55 ton fishbelly hoppers have been released for the following roadnames: Reading Road (#40447 & #40448), Lehigh Valley (#40449 & #40450), and B&O (#40451 & #40452). The cars include knuckle couplers and metal wheels. They retail for $27.95 each.

Four 55 ton peaked end fishbelly hoppers are available for TH&B (#40453 & #40454) and N&W (#40455 & 40456). The models include knuckle couplers and metal wheelsets. The hoppers retail for $27.95 each.

Four K-9 stock cars are available for the following: PRR (#40457 & #40458) painted with a silver roof and doors, and Penn Central (#40459 & #40460) painted with a black roof. The cars feature knuckle couplers and metal wheelsets, and retail for $27.95.

Bowser Manufacturing Co. Inc., P.O. Box 322, Montoursville, PA 17754-0322; 570-368-2379; Fax: 570-368-5046; E-mail: bowser@bowser-trains.com; www.bowser-trains.com

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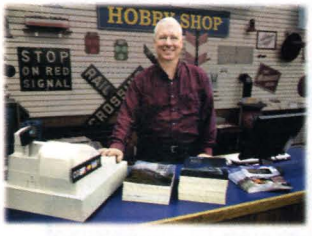

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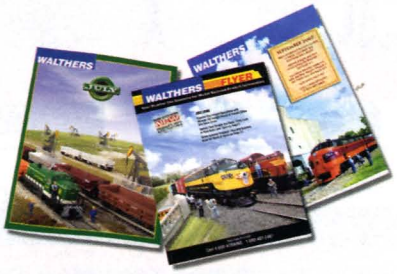

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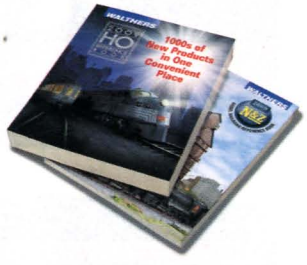

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REVIEW HO

Hiawatha series resumes with dinner and drinks

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Review and Photos by John Sipple

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ON HAND, we have the 1955 Twin Cities Hiawatha Milwaukee Road 48-Seat Diner and the 26-Seat Tap Lounge. Railroads knew what was no secret in the hospitality business: any restaurant that offered a dining room and a lounge could make some real money. In those happy days, a two dollar well drink started with a clean glass, some ice, five cents worth of flavored or unflavored carbonated water and a dime's worth of booze. Anytime you can make a thousand percent markup, that's the business to be in, and railroads went there, if the laws allowed.

Apparently they did in the states of Illinois, Wisconsin, and Minnesota. There are several ways to run this sort of business. You can use the 26-seat bar car as a waiting room for about half of those who would soon be seated in the diner. Your drink would be transported from the tap lounge to your table. After the fashion of good restaurants, you could order another drink with dinner and the waiter would get it from the bar, the price being added to your tab. After the last shift passed through tap lounge and diner, those so inclined continued the party in the lounge car.

Eating in a dining car (I know they use the term "diner" on the product, but a diner is a counter-and-booth establishment) is an interesting process. From the Twenties to present-day Amtrak dining cars, folks are worked through the place with a sort of ruthless efficienct fine-dining concept. It is most certainly not fast food, but it does move right along. Every table is full, even if you wind up eating with three other strangers. Heck, that's part of the appeal!

Every time I've eaten in a dining car, we had linen table clothes and napkins, stainless steel flatware, china dishes, very good food, and pleasant, efficient service. On Amtrak's *Empire Builder*, we were passing through Wisconsin and I

This looks like a photo of four cars, but it's really only both sides of two cars. The top two images are of the Diner (dining car) with the vent farm over the kitchen, which is generally the front of the car. The bottom pair of pictures shows the Tap Lounge and its unmistakable train phone antenna.

was offered for dessert a slice of apple pie with or without ice cream. I asked the server if I could get some cheddar cheese on top, and the man smiled and nodded. This is a sort of regional specialty and was a wonderful treat for me.

Walthers Dining and Tap cars

It's rare for the entire train to want to eat in the dining car; the premium price for food and service is a bit over the top for the coach crowd, though some certainly might splurge. The Purser sends in the first 24 diners, there to be seated and their orders taken. Meanwhile, he'd go into the tap lounge and start collecting his next double dozen. Once they were seated, the dining car would be full, and he'd be at the other end selecting the next 24 and so on until the meal was over.

The Purser, Bartender, and servers would run themselves silly until the train finally tied up at one end or the other. So as you run these cars, you need to imagine this. As with other dining cars of the period, these were around 9.5 feet wide inside and had a usable interior length of around 82 feet. A dining car had to have a kitchen but also couldn't have passengers traipsing through, so a two-foot wide walkway ran alongside the kitchen, leaving it with less than six foot of width for ovens, ranges, coolers, storage, and sinks. While there is no vestibule in either end, there is a service door on one side and a hatch on the other for loading stores. There is also an array of vents and chimneys on the roof over the various appliances.

Walthers gives us a look at the arrangement of tables and other fixtures inside this car, just as they have with their other members of the series. The Tap Lounge also has a detailed interior, mostly made of tan injection-molded pieces. You can paint and detail tables, seats, and more to your heart's content. In that car, there is seating in each end with the bar in the middle. It also has a service door into the back of the bar and some appliance vents on the roof overhead. This is windowless territory, since passengers didn't actually sit at the bar. This car also has the TrainPhone antenna on the top, allowing passenger to make phone calls from the train, long before the days of cell phones!

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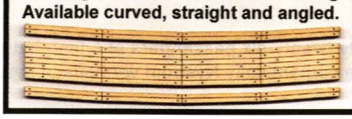

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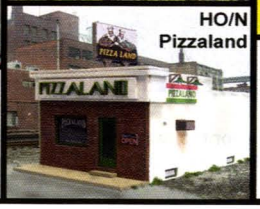

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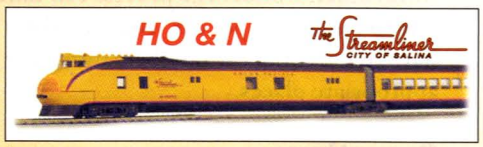

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The Tap Lounge was a real cash cow for the railroad, seating only twenty-six passengers at a time but providing bar service and snacks to far more than that. As with the other Hiawatha cars in this series, all of the trucks are authentically Nystrom versions of the high-speed, sway-balanced streamliner truck.

was driving down a two-lane blacktop, making perhaps fifty or sixty miles per hour and have the *Hiawatha* streak past you, going twenty to thirty miles per hour faster. The other thing was the Orange and Burgundy paint, which Walthers has just nailed! The roadname lettering and the Hiawatha logo are just beautiful. Our train grows ever longer and just that much more gorgeous.

You can run these cars right out of the box, if you wish, but for the full experience, you need to do some very fine modeling work. *MRN* writer R. Dave Carr has good, steady hands, and he installs the metal handrail and grab irons, some of which are tweezer bait. This requires drilling a couple of dozen holes in each car with a #80 drill bit, very exacting work. Small wonder the process can take one to two hours per car. You will also have to decal the car numbers into their appropriate places.

Operations

Walthers has a good mounting for magnetic knuckle couplers and has improved the quality of the coupler they apply, appeasing some of the complaints from previous car series. I have the feeling that some of the new owners might just wish to put on their favorite brand as part of their railroad's acceptance procedure. Others may find the new couplers are, indeed, better, but are they better enough?

One problem I noticed is that the couplers are mounted such that they have the freedom to move up about a half-head in height, enough to contribute materially to "popping," that situation where one coupler pops off the other, causing a train-in-two. If you care to do some shimming, you

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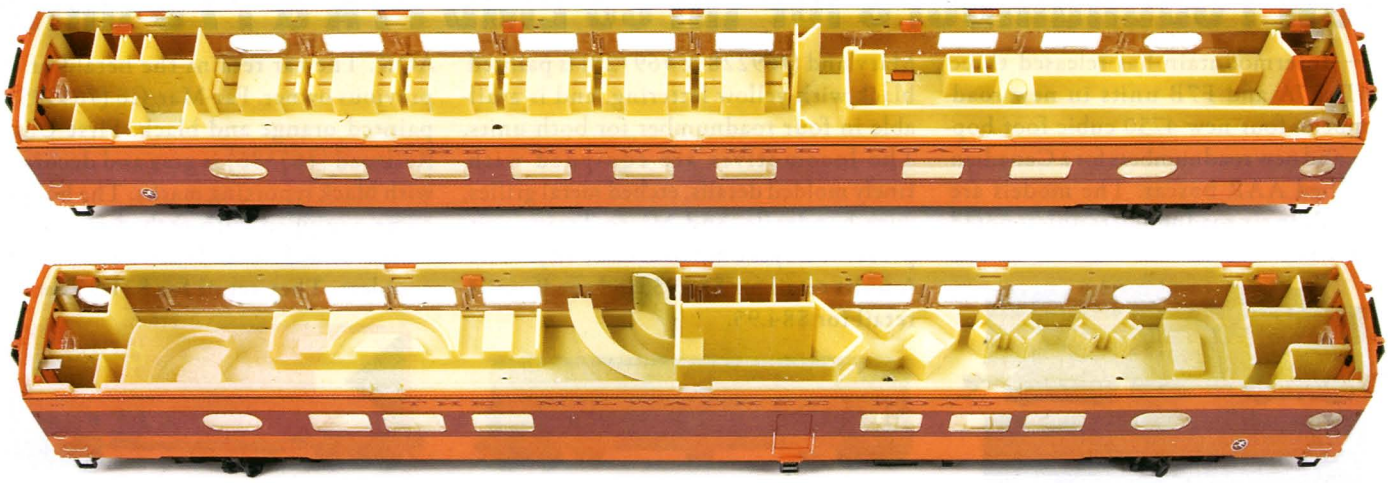

Walthers has gone the extra distance to detail the interiors and give us a lesson in history as they do. On top is the dining car, with the dining room to the left and the kitchen to the right. Below is the tap lounge interior with its curved booths and triangular tables for two.

could probably eliminate much of this. It would be most noticeable on those times when cars negotiate some track situation that also elevates or drops one end briefly about a half head. Too much pull could also cause this same problem.

Wheels and journals are top-drawer, rolling very smoothly but requiring at least a 24-inch radius curve. The wheels are metal because the trucks have power pickups, and you can purchase Walthers' optional car lighting strips. To install them, you pop off the roofs, carefully please. A slight twisting of the car helps. If you wish to do some painting or interior decorating, this would be a good time to add lighting and make a really deluxe train out of the *Hiawatha* Series.

Two more series installments to go

We have two more cars to go: the Skytop Lounge and the full-length dome car. We've all been eagerly awaiting these two, because they are the true icing on the cake. However, to serve the cake, we'll need the pair of A-unit E7s. They will be the final episode in our thrilling *Hiawatha* series. Stay tuned.

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New roadnumbers for three EMD F7A & F7B units

N — Intermountain has released three EMD F7A and F7B units in new roadnumbers, four new 4750 cubic foot hoppers, and new roadnumbers for a Canadian modified AAR boxcar. The models are available in six roadnumbers unless noted otherwise.

Three new EMD F7A and F7B units are now available in new roadnumbers. New York Central (#69201 & #69701) is completely assembled and decorated in the famous "Lightning Stripe" paint scheme. The body is painted black and gray with white stripping. The A-unit has four roadnumbers, and the B-unit has three. Great Northern (#69209 & #69709) is painted green and orange. Both the A- and B-units are available in four roadnumbers. Western Maryland (#69228 & #69728) is painted black with yellow lettering, and is available in four roadnumber for both units. The locomotives are equipped with finely molded details, etched metal grilles, wire handrails, and Micro-Trains couplers. They come DCC ready. The A-units retail for $89.95, and the B-units retail for $84.95.

Four 4750 cubic foot hoppers have been released. Union Pacific (#65371) is painted gray with black lettering and a red, white, and blue Union Pacific shield on the side of the car. It is available in six new roadnumbers. Arkansas & Oklahoma Railroad (#65384) has the dark green livery of the previous owner, C&NW, with new reporting marks for AOK. The car retains the herald of the previous owner. Far-Mar-Co (#65385) is painted orange and black. First Union Railroad (#65386) is gray and decorated with black reporting marks. The hoppers come equipped with etched metal roofwalks and Micro-Trains trucks and couplers. They retail for $21.95 each.

A Canadian Modified AAR 40-foot boxcar has been released in six new roadnumbers for Canadian Pacific (#66807). It is painted bright red with the large black and white "MultiMark." It comes fully assembled with finely molded details and Micro-Trains trucks and couplers. The boxcar retails for $19.95.

Intermountain Railway Co., P.O. Box 839, Longmont, CO 80502-0839; 303-772-1901; Fax; 303-772-8534; E-mail: intermountain@intermountain-railway.com; www.intermountain-railway.com

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Bluford Shops announces three new boxcars and four new cabooses

N — Bluford Shops has announced the third group of 86-foot boxcar runs, and their third group of cabooses.

Having featured the 80s to 90s in the first group and the 70s to 80s in the second group, this time Bluford Shops are harking back to the 60s with a trio of "as-built" paint schemes. These runs are in stores now. The models are available as a single car for $24.95, and as a two-pack for $49.90.

Although known largely as a coal road, C&O had an extensive network in Michigan, which it inherited from Pere Marquette. The Chesapeake & Ohio double door boxcar is available as a single car (#86061) for $24.95, and as a two-pack (#86062) for $49.90.

This group of cars was built at Pullman Standard's Birmingham, AL plant for C&NW in 1965. After hauling auto parts for a number of years, C&NW reassigned some to hauling breakfast cereal. The Chicago & North Western double door boxcar is available as a single car (#86051) for $24.95, and as a 2-pack (#86052) for $49.90.

Missouri Pacific assigned many cars in their auto parts fleet to subsidiaries such as C&EI, T&P, and Kansas Oklahoma & Gulf. This run represents one of the latter. The Missouri Pacific (#87031) quad door auto car is available for $24.95.

Bluford Shops has announced their third batch of cabooses. These special release ready-to-run Atlas NE-6 cabooses are painted and lettered for Southern Railway and Boston & Maine. Each roadname will be available in two roadnumbers. Southern acquired a fleet of steel cupola cabooses from subsidiary Savannah & Atlanta. The cars soon drifted away from their east Georgia home to work on other parts of the Southern system. They lasted nearly to the end of widespread caboose operations (under NS). Southern Railway, X252 and X251 (#93303 & #93304) retail for $24.95 each.

Boston & Maine adopted this paint scheme with the administration of Patrick McGinnis, who had given a similar look to the New Haven during his tenure there. The cars (#93305 & #93306) are numbered 414 and 401, and retail for $24.95 each.

These special release ready-to-run wood side, truss rod equipped cabooses are built by Bluford Shops from Athearn parts. They are painted and lettered for Grand Trunk Western and Central Vermont. Each roadname will be available in two roadnumbers.

Both GTW and CV were parts of the

sprawling Canadian National family, which explains the similarity in paint schemes; although the maple leaves of each railroad are different. Grand Trunk Western used woodsided cabooses from the inception of the line until the 1970s. GTW connected Chicago with Detroit and Port Huron, Michigan plus branches. In the 80s, GTW acquired DT&I and all of D&TSL. Today, the GTW is operated as part of the greater Canadian National System. Grand Trunk Western #77050 and #77005 (#985801 & #985802) retail for $24.95 each.

Central Vermont's wooden caboose fleet remained largely intact until 1972 when they were suddenly replaced by modern steel widevision cabooses. CV was a north-south railroad connecting the coast of Connecticutt at New London with the Canadian border, serving five states and the province of Quebec in the process. Central Vermont #4014, and #4004 (#985803 & # 985804) retail for $24.95 each.

Bluford Shops, P.O. Box 152, Bluford, IL 62814; 618-822-6833; Fax: 618-822-6833; E-mail: blufordshops@aol.com; www.bluford-shops.com

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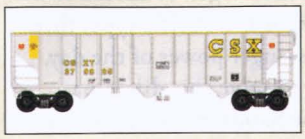

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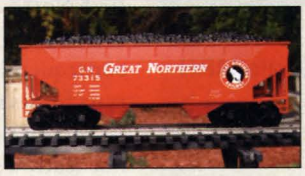

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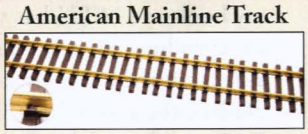

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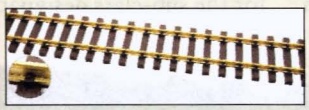

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Cover Story

REVIEW HO

The MTH Mohawk: The New York Central's Powerful Stallion Comes to HO Scale

Review and Photos by David Otte

NYC 4-8-2 Mohawk, HO scale, MSRP: $449.95

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OF THE many breeds found within the New York Central's motive power stables, the J-Class Hudson racehorses have received the most attention among model makers and railfans alike. However, and not wishing to commit heresy among my NYC peers, those 4-6-4s don't even come close for me to the power and visual appeal of the double-duty L-Class Mohawks that once glided over the Water Level Route's rails. Therefore, I could not help but be totally delighted with the announcement and subsequent quick delivery of MTH Electric Trains' newest HO-scale steam locomotive offering. A true ready-to-run DCC-and-sound-equipped model of the Mohawk has been needed for sometime in my book and MTH has set out not only to reproduce just one version of the NYC 4-8-2, but the entire post-1939 family including the L3a, L3b, L3c, L4a, and L4b. Each member of the class is available in one roadnumber at this time, but MTH promises all will be detailed appropriately for the sub-class designation.

By-The-Numbers

4-8-2 Mohawk
MTH Electric Trains
HO 1:87 • Type: Steam
Traction Tires? Yes

Pull Power (Ozs @ Full Slip)

Pull	÷	Loco Wt	=	Efficiency
7.1		19.0		37.4%
Volts		Amps		
16		0.89		

Analog DC

Start Volts = 6.9

Volts	Amps	Scale MPH
8.8	0.33	4.0
10.0	0.34	9.1
12.0	0.36	16.2
14.0	0.39	36.6
16.0	0.46	70.9

DCC

Stall Amps: n/a

Speed	Step (of 128)	Scale MPH
Min	2	1.4
Mid	64	64.1
Top	128	72.3

DCS

Remote

Speed	Step (of 120)	Scale MPH
Min	2	2.0
Mid	60	60.0
Top	120	74.0

Mountains on the Water Level Route?

The NYC's development of a 4-8-2 class of steam engines was not unique to them alone. During the early years of the Twentieth Century, many railroads were seeing trends toward longer and heavier passenger trains that began to exceed the capabilities of the 4-6-2 Pacific type, then the standard passenger power of the day. An opportunity to solve this dilemma soon fell into the hands of the American Locomotive Company at the behest of the Chesapeake and Ohio Railroad, whose passenger department was struggling to keep up their tight schedules through the Allegheny Mountains. Alco's answer was to combine the powerful eight-coupled drivers of the 2-8-2 Mikado freight engine with the four-wheel lead truck that guided the 4-6-2 quickly through curves, offering a new steam locomotive competent in both power and speed. The first North American-built 4-8-2 was delivered to the C&O in 1911 and was consequently christened the Mountain type for its new duties in the Alleghenies.

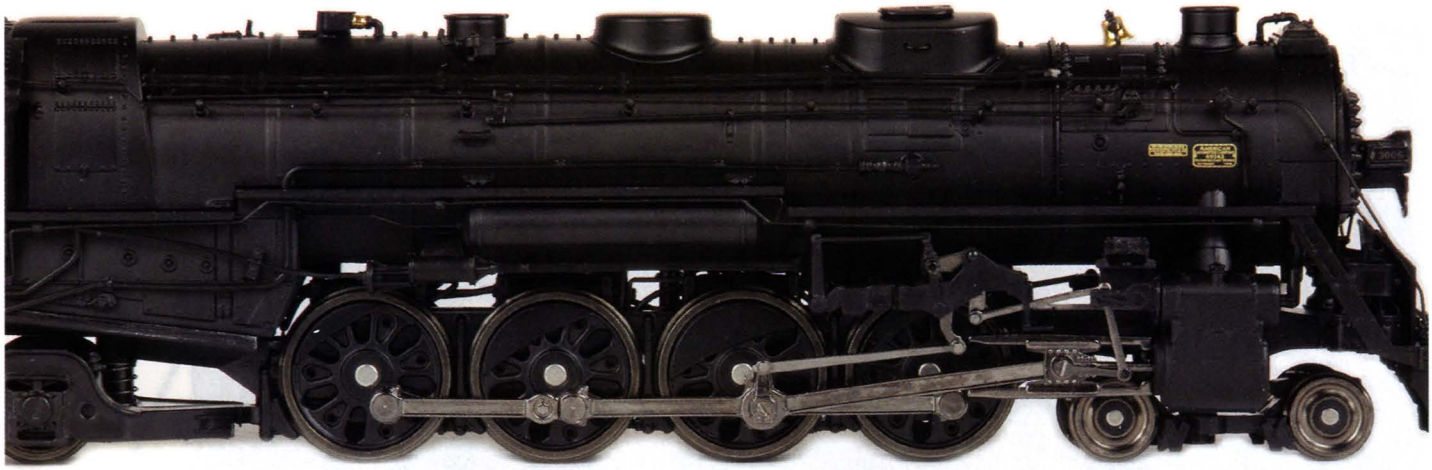
Mountains, in a geological sense, were not really a problem on the NYC, which was nicknamed the Water Level Route as its mainline to New York City followed the Hudson River, the Erie Canal, and the Lake Erie shoreline. Nevertheless, the railroad was in need of better-performing motive power on its increasingly longer and heavier fast freight trains. As the K-11-class Pacific's assigned to this duty continued to lag behind the timetable, the NYC's motive power management turned to Alco and its successful passenger-oriented 4-8-2 design.

In 1916, the NYC took delivery of its first 4-8-2. Its eight 69-inch-diameter drivers quickly proved that the 4-8-2 was as equally at home pulling fast freights as it was working on mountain-bound passenger trains, and the railroad had 185 4-8-2s

The modern Mohawk series as modeled by MTH includes the L3a, L3b, L3c, L4a, and L4b subclasses. Our review sample represented a dual-service L3a, number 3006, built by Alco in October 1940. The L3a class had roller bearings on all wheels, making it suitable for hauling passenger trains in a pinch, but lacked a booster engine on the trailing truck as found on its freight-only L3b and L3c brothers. Details are correct for an L3a Mohawk from production until just after World War Two when the L3 and L4 classes began receiving smoke deflectors or, as they were more commonly known, elephant ears, on their smokebox sides.

The model exhibits details galore with separately applied hand rails, coupler lift bar, train line air hose, LED-illuminated headlight and number boards, and all the steam, sand, water, electrical, and air lines visible on the prototype. Especially take note of the Alco builder's plates which, under magnification, read the construction number, 69343, and correct delivery date, October 1940, for our number 3006 sample. Also depicted appropriately are the rectangular-shaped Worthington SA feedwater heater atop the smokebox, compound air pumps behind the pilot deck shields, and see-through passenger-style pilot. Both the L3 and L4 classes were equipped with drop couplers, but MTH has provided a fixed working magnetic coupler allowing the modeler to double-head their Mohawks.

The tender on the Mohawk is equally well-detailed with real coal load, separately applied ladders, add-on hand rail, operating backup light, and coupler lift bar. Also note the Kadee-compatible knuckle coupler and the water fill hatch on the deck that allows access to the smoke unit and volume controls. Also visible on the deck are the curved top of the water scoop trough, which deflected the scooped water back down into the tender, and the square box that housed the Train Control equipment. Finally, note the stoker access hatch on the side of the tender beneath the lettering.



MTH's intricately detailed eight-coupled driver set is shown in this photo. Rods, valves, alligator type crossheads, and guides are all made of metal, the Baker gear frames are molded in black plastic, and the scale 69-inch diameter Boxpok drivers are see-though. The brake gear actually has been replicated in full with the shoes visible and the brake beams and linkage continuing on underneath the engine. All that's missing down here are the sanding lines!

on their roster, classed as L1a, L1b, L-1c, and L1d, by the time the country entered the First World War. While the reference to this new breed as Mountains did not seem at all appropriate to the NYC crews, the L class became known as Mohawks after the name of the NYC division on which the first NYC 4-8-2 was tested. An additional 300 Mohawks, classed L2a-L2d, were delivered by early 1930.

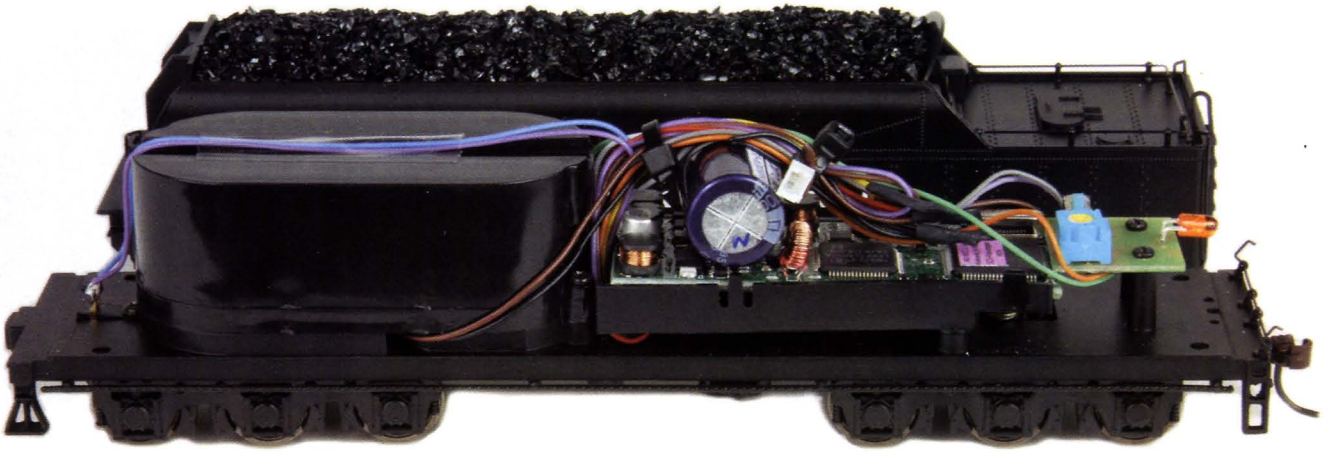
However, it is the more modern classes of Mohawks that are of specific interest to us in regard to the MTH offerings. As the country began to emerge from the Great Depression, the NYC once again felt the need for additional fast freight motive power, but this time with the potential use as backup passenger power too. This resulted in the delivery of 50 new L3 class 4-8-2s in late 1940 and early 1941. The first 25, classed L3a and numbered 3000 – 3024, were dual-service units erected by Alco and outfitted with roller bearings on all wheels for smoother operation at high speeds, Worthington SA feedwater heaters, and new larger tenders with a 15,500 gallon water and 43 ton coal capacity, as well as a water scoop beneath to take in water on the fly.

Likewise, the second group, classed L3b and numbered 3025 – 3049, also featured the new giant tenders, but were considered freight-only engines with standard bearings and tender truck boosters. Alco built the first ten, characterized by their Worthington feedwater heaters, and the remaining new engines came from Lima Locomotive Works and were equipped with Elesco feedwater heaters. An L3c freight-only class numbered 3050 – 3064 arrived in 1942, and followed the L3b design, but was exclusively built by Alco with Worthington feedwater heaters.

The L3 class featured a 250 pound boiler pressure, 25.5 inch x 30 inch cylinders, lightweight reciprocating parts, dynamic counter-balancing, Baker valve gear, and 69-inch drivers either of the Boxpok or Union Web Spoke design with spacing so that they could easily be swapped out with 72-inch drivers if the need arose. Combined, the characteristics of the newer design provided an almost 25 percent increase in drawbar horsepower over the older L2 class.

The pinnacle, though, of the Mohawk

Coupling the locomotive and tender together couldn't be easier thanks to MTH's unique drawbar design, which provides both the mechanical and electrical connection. Simply slide the pin on the bottom of the tender into the opening on the end of the drawbar. That's it! No unsightly or awkward wiring harness with which to fuss. Note the hinged tender apron complete with tread plate detail hanging down from the rear of the cab floor as well as the backhead detail and painted crew figures. What's more, this shot affords us a view of the wiper-style electrical pickups used on the tender truck wheels; the speaker grille is also visible.



The tender houses the brains of this operation in the form of the Proto-Sounds 3.0 and DCS circuitry. The sound system utilizes a single speaker, which lies face down in the forward deck of the tender floor and is covered from our view in this photo by the large black plastic box that acts as a speaker baffle.

class were the 25 L4a (numbered 3100 – 3124) and 25 L4b (3125 – 3149) engines constructed by Lima in 1942 – 1943. They adhered more closely to the fast freight-passenger service design of the L3a engines, but with the use of 72-inch diameter drivers of either Boxpok or Scullin Disc design and larger 26-inch x 30-inch cylinders being the major exceptions. Furthermore, the L4b class received multiple-bearing crossheads and their tenders were modified with even higher-speed rated water scoops. Later, the L4s, as well as the L3s, were outfitted with smoke deflectors further distinguishing their muscular and more modern appearance.

The dual-service nature of the L3a and L4 classes in particular proved their worth to the NYC during the following war years racking up thousands of miles hauling troop trains. Once only used on the NYC proper, the Mohawk class would eventually see service on many of the NYC's subsidiary lines especially after dieselization began. Doomed by the diesel-electric technology, the remnants of the class would make their last stand in late 1956 working the system's west end. Of the 600 total Mohawks once owned by the NYC, the largest group of 4-8-2s on any single US railroad, only two survive today as static remembrances of these once proud steeds.

MTH's Mohawk

For the HO-scale world though, the sights and sounds of a Mohawk alive and well are possible thanks to MTH Electric Trains. Generally, the Mohawk replica is pretty consistent with the other models MTH has offered to date: the Pennsy 4-6-2 K4s, the Erie 2-8-8-8-2 Triplex, and the Southern Pacific 4-8-4 GS4. To get better acquainted with this latest model, we'll start with its appearance.

All five versions of the Mohawk feature diecast metal boiler, cab, tender body, and frames offering the engine-tender duo a total weight exceeding two pounds. Molded-in details have been kept to a minimum, but those that are present, such as the hatches on the turret housing, the bands and jacket clamps on the boiler, and the riveted sidewalls of the tender, are crisp in appearance.

Enhancing these larger castings are a plethora of add-on plastic and metal parts, which comprise the bulk of all the plumbing and appliances (steam turbine, power reverse, feedwater heater, etc.), as well as including fine wire handrail, detailed backhead with hand-painted crew figures, sliding cab roof vents, cinder guards at the cab side windows, and realistic coal load in the tender. The main and side rods, crossheads, and valve gear, fabricated from blackened metal, also look convincing, as do the see-through Boxpok drivers.

Especially important are the asymmetrical details of the modern Mohawk, which often go unnoticed by railfans. Disregarding the appliances, the L3 and L4 classes had two distinctive qualities, which have been correctly captured on

A bare-naked lady! NYC Class L2d number 2933, one of only two surviving Mohawks, is currently undergoing cosmetic restoration at the Museum of Transport in St. Louis, Missouri and had been stripped of her boiler and cylinder jackets at the time this photo was taken on an early September day in 2008. The other example, L3a number 3001, is displayed at the New York Central Railroad Museum in Elkhart, Indiana.

The New York Central's L class Mohawk as rendered by MTH Electric Trains. It's a breed apart from other HO-scale steam locomotive models with its three different modes of operation and fan-driven smoke unit. At 15 inches long and over two pounds in weight, the model is a real handful, but still can negotiate tight 22-inch radius curves.

these models. The first is the double side windows on the fireman's side of the cab only: one doublewide sash and a single sash separated by a pillar. Both could be slid open and were equipped with armrests. The other detail is the stoker engine access hatch practically centered left to right on the fireman's side of the tender. Its location caused the road lettering to be applied higher on that side than the other.

All these characteristics come together to form an overall accurate model of the modern Mohawk class exhibiting dimensions within a scale inch or so of the prototype's recorded measurements. This includes the overall wheelbase of the engine, the tender truck's wheelbase, driver diameter and spacing (for the L3a class), height of locomotive over stack, tender frame length, and, well, you get the picture; it easily meets current model railroaders' expectations.

At this point I must make note, however, that we did not sample all five subclasses of the MTH Mohawk and cannot comment regarding the accuracy of the manufacturer when modeling the L3b, L3c, L4a, and L4b versions. On the other hand, I can attest to the fact that the L3a described herein is correctly reproduced as apparent by the presence of the Worthington SA feedwater heater, 69-inch diameter drivers, and lack of booster engine on the tender truck.

Our L3a sample represents number 3006 built by Alco at its Schenectady, New York plant in October of 1940. Again, consistent with past offerings, the decoration of the Mohawk was excellent, decked out in a smooth, satin black finish with sharp, opaque white lettering. The etched-metal number plate and New York Central blue oval hung beneath the headlight are well done and completely readable, as are the fantastic and correct Alco rectangular builder's plates on the sides of the smokebox. Finally, as stated earlier, the fireman's tender side lettering is correctly raised above the stoker engine access hatch while the other side's lettering remains at the regular side height.

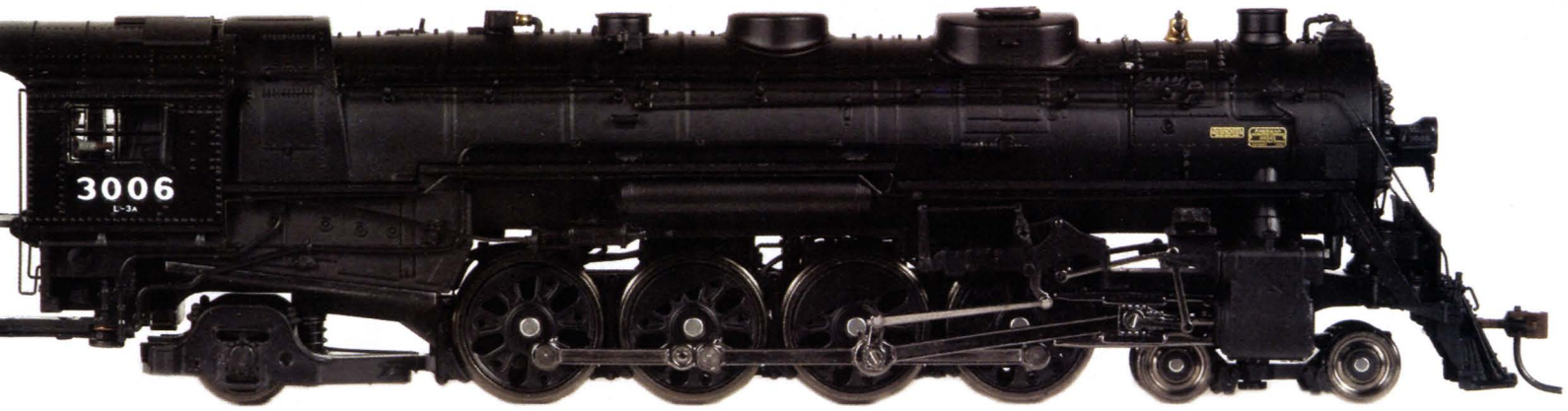
The Mechanics of the Mohawk

Mechanically speaking, the MTH Mohawk is consistent with their past HO-scale models as well. A can motor with flywheel powers the 4-8-2 and, in this case, is geared to the axle of the third pair of drivers, which also happen to be outfitted with traction tires (a driver set without traction tires and nut-driver are included for those who object to the use of traction tires). Engine and tender are coupled through MTH's exclusive drawbar design that incorporates both electrical and mechanical connections. Therefore, no cumbersome-to-connect and unsightly looking wiring harness is necessary. Hurray! The only drawback to this arrangement is that no provisions are made for closer coupling of the pair for those modelers using wider curves than 22-inch radius.

Furthermore, LEDs are used in the directionally controlled headlight and tender backup light as well as for illuminating the cab. The eight drivers are all flanged, sprung, and have some side-to-side play, offering the locomotive a minimum operating radius of 22 inches. Every wheel on the engine and tender is blackened metal and meets RP25 standards plus they were all properly gauged when I checked them with an NMRA Standards Gauge. The drive wheels and tender truck wheels serve as electrical pickups and proved adequate as such through our testing on various track geometries and turnouts from code 100 down to code 70 rail. Drawbar pull was a rather average 4.2 ounces despite the use of traction tires, but at 16 volts, this figure rose to an impressive 7.1 ounces.

Also packaged with the 4-8-2 is a pair of operating magnetic couplers molded in brown plastic, which are to be installed by the consumer on the tender and on the front pilot. However, I would point out that both our Editor, John Sipple, in his review of the MTH GS4 model (September 2008) and I have found these plastic couplers over time to be less than satisfactory in performance and suggest the modeler replace them with more substantial metal couplers such as those produced by Kadee.

Finally, like all the MTH HO-scale products to date, the Mohawk is equipped with a fan-driven smoke unit. Its operation is electronically incorporated with the ProtoSound 3.0 system to puff in sync with the motion and sound of the model. While this unique animation of MTH headlines the list of features the company brings to the HO-scale market, it's not for everyone and a number of experienced modelers have questioned its inclusion on these relatively accurately portrayed renderings. Personally, having a model railroading background that includes tinplate trains, the operating smoke unit seems like a clever feature to include in 1/87-scale products. If you disagree with me and find it to be more of an annoyance, that is okay, too. The smoke unit can be turned off and its apparatus does not affect the appearance of the model. Just don't let this feature discourage you from taking a look at this fine scale model.



The Mohawk's Tri-Mode Operating System

Like any other MTH HO-scale locomotive, operation is pretty straightforward thanks to the ProtoSound 3.0 electronics, which can be operated with analog Direct Current (DC), Digital Command Control (DCC), and through MTH's proprietary Digital Command System (DCS). As soon as the locomotive is placed on the rails and powered up, the PS 3.0 system intuitively knows which method of operation is being used.

For DC, the sound and lights come on at an application of about 7 volts, which is high but in line with other makes of DC/DCC-sound equipped models. At startup the whine of the steam turbine can be heard, after which the incidental audio of a steam engine idling on the tracks is experienced as smoke wisps from the exhaust stack, the headlight glows dimly, and a cab light shines brightly for the crew. Just advance the throttle and the headlight brightens as the locomotive moves out and white smoke vigorously puffs from the stack.

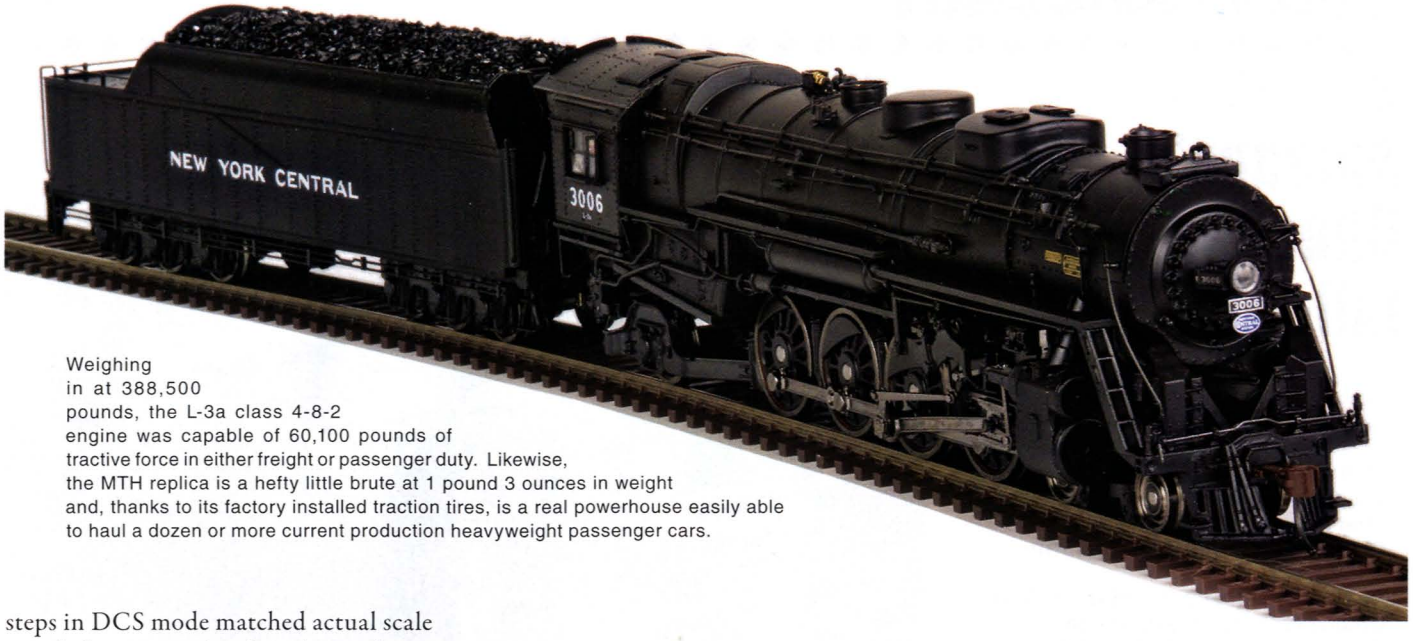
Operation was smooth with our MRC Tech 4 power pack with speed ranging from 4 scale miles per hour to about 71 scale miles per hour at 16 volts — PS 3.0 equipped models have a maximum operating voltage of 24 volts. As the drivers rotate more rapidly, smoke continues to flow generously from the stack with the proper four chuffs emanating from the sound system's speaker housed in the tender. Speeding up, then slowing down quickly engages squealing brake sounds automatically. Unfortunately, as I have noted in the past, the PS 3.0 system doesn't offer the DC operator the ability to activate the whistle or horn sounds with a standard transformer; the purchase of a DCS Commander is the only resolution. The volume in this mode can be adjusted by way of a control under the tender water hatch where the smoke unit's on/off switch is also located.

In contrast, DCC offers access to just about every feature the PS 3.0 system has to offer. There are 28 functions in all, but with our Digitrax Zephyr DCC setup, I could only test functions F0 – F8 (headlight, bell, momentary whistle, startup/shutdown, Passenger Announcements, all lights on/off, engine sounds, volume, and smoke). Fortunately, DCC manufactures such as MRC are starting to produce controllers with the F0 – F28 function ability. Again, operation of the 4-8-2 was smooth in this mode and with speed steps set at 128, the Mohawk inched along at less than 2 miles per hour to a maximum of 72 miles per hour. The sounds were convincing as always. Furthermore, there are ten Configuration Variables that can be adjusted on the model including addressing and setting the acceleration/deceleration rates.

If you have MTH's DCS Remote or Commander, then the sky's the limit as far operating the Mohawk goes. One exclusive function of DCS is the quillable whistle feature that allows the thumb wheel throttle on either the Remote or Commander to change the pitch and duration of the whistle, offering the operator the ability to create their own unique whistle signature. The incremental speed

With its quality flywheel-equipped can motor, electronic speed control, and sprung drivers, the MTH Mohawk tracks very well even on those tight 22-inch radius curves and code 70 rail. The on-board command control circuitry provides the operator with three different methods of operation intuitively: Analog Direct Current, Digital Command Control, and MTH's proprietary Digital Command System. However, no matter which mode you choose with which to operate this model, you'll find it to be a very smooth performer.

3006
NEW YORK CENTRAL



Weighing in at 388,500 pounds, the L-3a class 4-8-2 engine was capable of 60,100 pounds of tractive force in either freight or passenger duty. Likewise, the MTH replica is a hefty little brute at 1 pound 3 ounces in weight and, thanks to its factory installed traction tires, is a real powerhouse easily able to haul a dozen or more current production heavyweight passenger cars.

steps in DCS mode matched actual scale speeds from 2 to 74 scale miles per hour. One final note: when testing the PFA or Passenger Freight Announcement feature, our sample locomotive initiated the sequence to the voice of the conductor calling out the arrival of the Knickerbocker implying the number 3006 has been reassigned from its usual fast freight duties to emergency passenger service on the old New York City to Boston route.

A New Breed of Scale Motive Power

MTH Electric Trains is taking an aggressive stance when it comes to the HO market. They've promised a whole stable full of new locomotives as well as rolling stock for 2009 and, if they're anything like what we have been witnessing here at *Model Railroad News*, the company is certainly not taking any shortcuts when it comes to research and development. The Mohawk is a top-notch model that brings all the majesty, might, and muscle of the prototype back from the clutches of history, albeit in miniature form. It definitely represents a new breed of horsepower for the HO modeler's steam roster.

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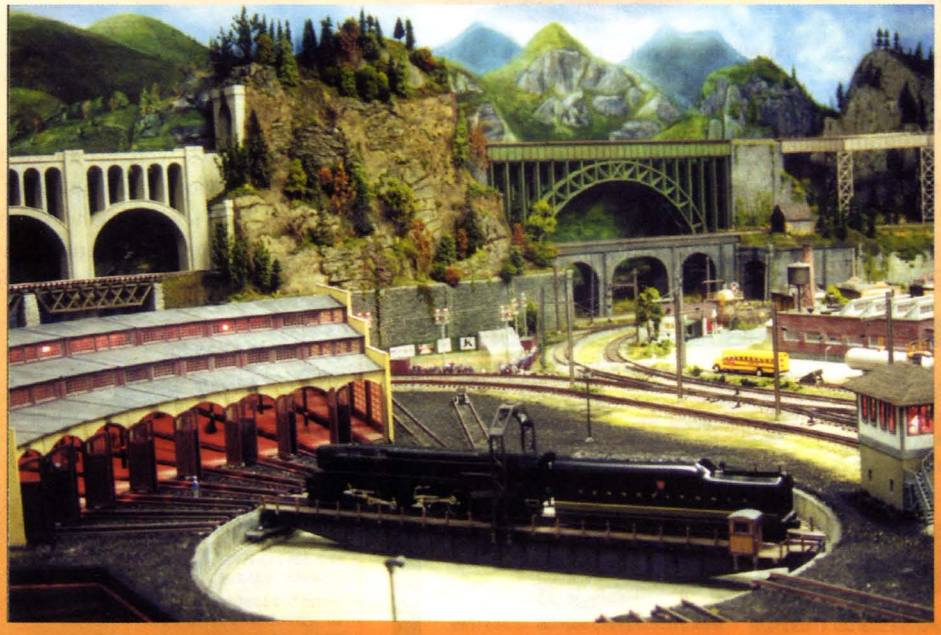

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REVIEW HO

Athearn's Checker is a full-fare ride

Review and Photos by Bill Cawthon except as noted.

1956 Checker A8 taxi, injection-molded plastic, ready-to-run
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Red & yellow (#26372), MSRP: $12.98
Green (#26373), MSRP: $12.98
Black & yellow (#26374), MSRP: $12.98
Second release (due January 2009)
New York Yellow Cab (#26375), MSRP: $12.98
Red Cab Taxi (#26376), MSRP: $12.98
Diamond Cab Company (#26377), MSRP: $12.98
Checker Taxi Co., Orange (#26378), MSRP: $12.98

Athearn Trains
1550 Glenn Curtiss St.
Carson, CA 90746
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www.athearn.com

The Athearn model is based on a real 1957 Checker A8 restored and owned by Joe Fay. In addition to his interest in restoring Checkers and other cars, Joe is also a very talented modeler in HO scale. Top photo courtesy of Joe Fay.

CONSIDERING how common they were at train stations and on city streets, I have always been surprised at the lack of ready-to-run taxicab models, especially the Checker that came to typify the image of the American cab for much of the last half of the Twentieth Century.

Athearn has now delivered a model of the Checker A8, the first model produced in the now-familiar body style that remained in production from 1956 to 1982. The Athearn model was announced in February of last year, and deliveries began last summer. A second release was announced in July with delivery planned for January 2009.

Checker taxis were produced by the Checker Motors Company of Kalamazoo, Michigan. Checker history as an automotive brand began when Morris Markin, a clothier from

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Athearn's new Checker A8 cab fills a real void in the HO vehicle fleet. The Checker A8 and its successors became the image of the American taxi for decades and no railroad station from the mid-1950s to the 1970s should be without at least one.

Chicago who had made a tidy sum supplying uniforms to the U.S. Army in World War I, loaned $15,000 to Abe Lomberg, the owner of the Lomberg Auto Body Manufacturing Company in Joliet. Lomberg made bodies for Commonwealth Motors, also of Joliet, which added them to its chassis and marketed them as taxicabs under the Mogul brand. The post-war recession of 1920-21 hurt sales and soon the body business wasn't producing enough revenue to keep up the payments on the loan. Lomberg defaulted, leaving Markin with the company.

Things were also looking bad for Commonwealth Motors, though a large order from the Checker Taxi Company of Chicago kept the company afloat for a while. The one-shot order wasn't enough to keep the company going and, late in 1921, Commonwealth declared bankruptcy.

In the meantime, Markin, a very shrewd businessman, had taken steps to protect his investment. In late 1920, when the order from Checker was received, he had already reorganized the Lomberg Body Company into the Markin Body Company. After Commonwealth went belly-up, Markin offered to exchange shares in the Markin Body Corporation for the assets of the defunct automaker. As it was the best, and possibly only, offer the receivers got, it was accepted. In May of 1922, Markin merged the companies as the Checker Cab Manufacturing Company.

Checker initially built both Mogul cabs and Commonwealth passenger cars but Markin decided Checker's future was in producing taxis and dropped the Commonwealth line. It was no big deal as the Mogul Checker cabs were just Commonwealth cars with heavy-duty suspensions and clutches. Markin added a checkerboard pattern to the car's beltline and logo, installed checkerboard lenses on the running lights, and introduced the Checker Model C taxi on June 18, 1922.

Markin relocated Checker manufacturing to the former Dort Automobile factory in Kalamazoo, Michigan in April 1923. The first Michigan-built Checker cab rolled off the line on July 15 that year.

In the years between 1923 and 1956, Checker cabs went through numerous changes and grew in popularity. In 1954, Checker vehicles accounted for three-quarters of the taxicabs in New York City.

1956 was the year Checker introduced the A8, the first car with the styling we today associate with the company and the prototype for the Athearn model.

The Checker A8 was designed to meet New York City's new 120-inch wheelbase regulation. Among its new features were Checker's first independent front suspension, power steering, and power brakes. There was also completely redesigned body that included easily removed and repaired fenders and door skins. Available options included an automatic transmission, a power driver's seat, and a remote opening passenger-side rear door to allow the cabbie to pick up a fare without leaving his seat. The A8 was built from 1956 to 1958 and production totaled 9,997 cars.

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RR-34521	PFE 57' Mech. Reefer w/ black patch' 12 rd #'s Hydra-Cushion Underframe, **
RR-34551	PFE 57' Mech. Reefer w/ black patch' 12 rd #'s, Keystone Underframe, **
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The models are nicely painted in typical taxi liveries and feature lots of nice detailing. Athearn even remembered to add the trunk-mounted mini-billboard advertising sign taxi operators added to get extra revenue from their fleets.

The Athearn model is based on a real 1957 Checker A8 with Dri-Ver-Matic transmission restored and owned by Joe Fay of Chicago, Illinois. In fact, the No. 26373 model is a reproduction of Joe's car. Joe is an authority on Checkers and a past president of the Checker Car Club of America.

The Athearn cab is a nice model that scales out well compared to the specs for the full-size version. All the details are there, from an accurate reproduction of the rooftop sign to the advertising sign mounted on the rear deck, a common feature on taxicabs that is often omitted by other model manufacturers. The interior includes the jump seats that allowed the A8 to carry up to five passengers in the rear compartment.

The one detail that was out of place was the rearview mirror. Instead of being mounted on the top of the driver's side fender, it is stuck on the hood. I am sure this position is easier on the assemblers and less prone to damage, but in its current position, it's mostly useful for giving the driver a dandy view of himself.

Another thing I noticed is the steering wheel, which looks like it would be more at home on the deck of a sailing ship. However, I don't have a handy Checker steering wheel with which to compare it and I remember that steering wheels were rather large in the pre-power-steering days, so it might well be accurate.

As we have come to expect from Athearn, the tooling is nice and sharp and captures the distinctive look of the real car. The assembly on our samples was very good. The headlights feature chrome bezels with clear inserts for a very realistic appearance.

Paint is good, too; smoothly applied and the areas where different colors met were sharply defined with no bleeding. However, there were a couple of areas on some of the samples where the paint masks were off ever so slightly. I hate to mention this as the gaps were small and taxi paint schemes can be difficult to precisely reproduce on a mass-produced small-scale model. To be honest, once the models are on your layout, the tiny gaps won't be noticeable and the cars will look fine.

The pad printing was very good; even very fine lettering was readable and sharp and I found no problems with show-through.

If your layout is set in the years from the late Transition Era to the end of the 1960s, a line of Athearn Checkers will look great outside your train station as they drop off passengers or wait on their next fare. The A8 was only in production for two years, but Checkers were legendary for racking up the miles so it wouldn't be out of place to see an A8 still working when Amtrak took over most of the passenger service in the U.S.

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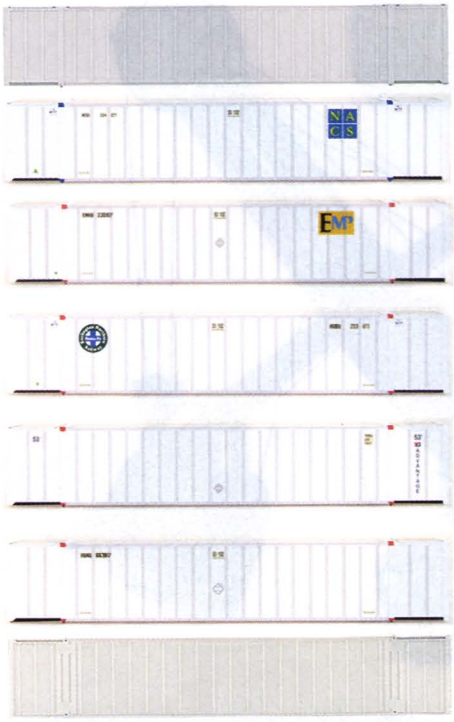
Seven Hyundai containers released from Intermountain

HO — Intermountain has released seven 53-foot Hyundai containers. Each decorated container is available in a 3-pack with multiple roadnumbers, sharp painting, and lettering. The undecorated containers are also available in 3-packs.



The undecorated (#30600) container is based on Hyundai's early version of the next generation container for the North American Intermodal market. NACS (#30601) is painted white with the blue and yellow logo on the side. Trailer Bridge (#30602) is white with the white and red logo and black lettering. EMP (#30603) is white with the yellow, black, and blue EMP herald painted on the sides. Hub Group (#30604) is white with a blue and black BNSF cross herald on the sides. Hub Group (#30605) is white with black reporting marks and a Hub Group logo on the end. Undecorated (#30650) is the late version of the company's next generation container for the North American Intermodal market. The suggested retail price is $26.95 per pack.

Intermountain Railway Co., P.O. Box 839, Longmont, CO 80502-0839; 303-772-1901; Fax: 303-772-8534; E-mail: intermountain@intermountain-railway.com; www.intermountain-railway.com

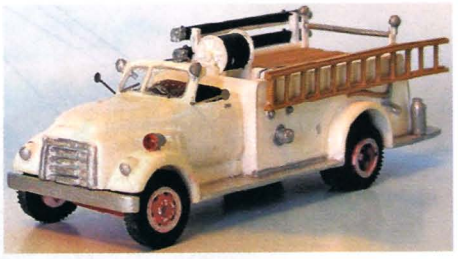
New Cat 272C Skid Steer Loader from Norscot

1:32 — Norscot has released a diecast model of the Cat 272C Skid Steer Loader, one of the new "C" series machines from Caterpillar. The model features three interchangeable work tools — pallet forks, grapple bucket, and general-purpose bucket, articulated arms and coupler, rolling wheels with authentic tire tread patterns, the latest Power Edge trade dress graphics, and visible cab detail.

The loader (#55167) measures 4-7/8-inches by 2 inches by 2 3/4 inches (12.38 by 5.08 by 6.99 cm). The suggested retail price is $27.95.

Norscot Group, 1000 West Donges Bay Rd, Mequon, WI 53092; 800-653-3313; Fax: 800-653-4904; E-mail: norscot@norscot.com; www.norscot.com

New GMC LaFrance pumpers from Sylvan



HO — Sylvan has released two new 1950-53 GMC-LaFrance pumpers. The pumpers come as an open cab (#V-083) that is painted white, and a closed cab (#V-084) painted red. These fire trucks can be placed on almost any layout, and will help keep your neighborhood safe.

The trucks retail for $29.95 each.

Sylvan Scale Models, 32229 Sylvan Road RR 2, Parkhill, ON N0M 2K0; Cananda519 294-6601; Fax: 519-294-0123; E-mail: office@sylvan.isp.ca; www.isp.on.ca/sylvan

New Cat P5000 Lift Truck

1:25 — Norscot has released a new Cat P5000 Lift Truck model. The details include adjustable and removable forks, three-position mast that raises and lowers, rolling wheels with authentic tire tread patterns, rear-wheel steering, detailed operator's compartment, and propane tank.

The lift truck (#55223) measures 5-5/8 inches by 1-3/4 inches by 3-1/4 inches (14.29 by 4.45 by 8.26-centimeters). The suggested retail price is $37.95.

Norscot Group, 1000 West Donges Bay Rd, Mequon, WI 53092; 800-653-3313; Fax: 800-653-4904; E-mail: norscot@norscot.com; www.norscot.com

New Bucyrus-Erie cable shovel and hoe

1:50 — EMD Models has released a Bucyrus-Erie 22-B cable shovel, and a Bucyrus 22-B cable hoe. The original 22-B machine was built in several plants worldwide, from 1937 to 1976. The model was built after the 1957 machine.

Some of the features of the models are: diecast metal details, working individual linked metal tracks, handrails on cabin and boom, operating drums for hoist, crowd, and boom, opening trip door, opening engine doors, detailed operators cab and engine, removable catwalks, vintage specification booklet, authentic "Bucyrus-Erie" nameplates, and a colorful collectors box for each version. The cable shovel (#EMDT001) and cable hoe (#EMDT002) retail for $179.95 each.

Buffalo Road Imports, 10120 Main St, Clarence, NY 14031; 716-759-7451; Fax: 716-759-7462; E-mail: sales@ConstructionScaleModels.com; www.constructionscalemodels.com

EMD Models' new Bucyrus-Erie 22-B Cable Shovel and Hoe models the 1957-era prototype, and features multiple moving parts. The models are sold through Construction Scale Models.

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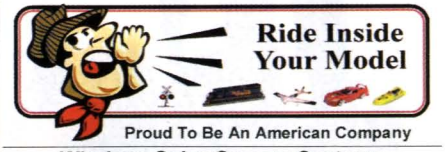

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99244	20′ container, 3-pk, APL, vert. logo, one container nbr	$16.95
99245	20′ container, 3-pk, APL, large logo, one container nbr	$16.95
99246	40′ container, 3-pk, APL, vert. logo, one container nbr	$21.95
99260	45′ container, 3-pk, Evergreen, 3 container nbrs	$24.95
99295	20′ container, 3-pk, US military, 3 container nbrs	$17.95
99303	45′ container, 3-pk, MOL, 3 container nbrs	$24.95
99315	40′ container, 3-pk, APL, corner logo, 3 container nbrs	$21.95
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C49 Transit motor coaches from Wheels of Time

N — Wheels of Time has announced the upcoming release of the C49 Transit Motor Coach. Built from the 1950s to February 1960, the bus was in service till the 1970s.

The bus will be offered as a one-door suburban or a two-door city version, depending on the prototype. It will be available in ten paint schemes with authentic bus numbers and three unlettered painted options. It features full interior, changeable destination signs, and window glazing.

The fully lettered and painted buses to be offered are: Ave. B and East Broadway, for New York City, Montreal Transportation Commission, San Francisco Municipal Railway, Milwaukee & Suburban Transport Corp., Seattle Transit System, Los Angeles Transit Lines, Chicago Transit Authority, St. Louis Public Service, Pacific Greyhound Lines, and Massachusetts Bay Transportation Authority "T."

Wheels of Time's upcoming C49 Transit Motor Coach is expected to ship in March 2009. Artwork shown.

The estimated delivery time is March through April 2009. Visit the company's web site for ordering and pricing information.

Wheels of Time, P.O. Box 846, Mountain View, CA 94042-0846; Fax: 866-737-9654; E-mail: talk2us@wheelsotime.com; www.wheelsotime.com

New containers from Deluxe Innovations

N — Deluxe Innovations has released a new 20-foot smooth side refrigerator container, a BNSF Maxi-Stack IV well car, a Hyundai, and a TIP 48-foot trailer.

A new 20-foot smooth side refrigerator container is now available. The new container body style is an ISO standard height container with a reefer unit in the nose. These containers are seen around the world transporting temperature sensitive cargoes. The first run will consist of four 2-packs in Maersk Sealand (#30011), Orient Overseas Container Line or OOCL (#30021), P&O/Nedlloyd (#30031), and ANL Container Line (#30041). This new body style is being produced in conjunction with an Australian dealer and will not be available directly from DeLuxe Innovations in Australia. Contact Deluxe if you need contact information for sales in Australia. Each 2-pack retails for $12.95.

The release of the BNSF Maxi-Stack IV well car has been announced. The cars are made up of 3 wells each able to handle a container up to 53 feet long. Details will be separately applied plastic and metal parts. The cars (#350201 & #350202) will retail for $69.95 each.

A TIP 48-foot trailer on the Micro-Trains body is now available with a silver roof. The trailers (#710913 & #710914) will retail for $14.95 each.

Deluxe Innovations, 9 Whippany Rd Unit 10, Whippany, NJ 07981-1540; 973-887-3919; Fax: 973-887-5123; E-mail: info@deluxeinnovations.com; www.deluxeinnovations.com

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REVIEW N

Also Available for HO

The Wheels on the Bus Go Round and Round! Animation for Your Layout

Review and Photos by Phil Scandura

Car System Starter Set with Wiking Bus, MSRP: $207.99

Faller GmbH
D-78148 Gütenbach/Schwarzwald
Germany
www.Faller.de

Faller makes it easy to add animated vehicles to your N-scale layout. The Faller Car System starter set shown here includes everything you need to add animation to your streets. The starter set comes with one vehicle, a charging unit, steel guide wire, road-building compound and color, electromagnetic "stop station," and full instructions.

WHEN our first child was born, my wife, an elementary school teacher, seemed to have the perfect kid's song for every occasion. One of the first songs I remember is "The Wheels on the Bus." Once you've heard it, you never forget it; like riding a bicycle. I'll spare you the song lesson today, but ask your grandchildren the next time they visit.

Years later we would take a family trip to Legoland California, a magical theme park built out of Lego bricks. My favorite spot in the entire park is "Miniland USA," an attraction which includes reproductions of various cities around the United States, constructed of 20 million Lego bricks in 1:20 scale. Traveling throughout Miniland are Lego model trains and vehicles. The trains run on tracks, of course, but the vehicles navigate the streets on their own with no visible means of guidance. They are a treat to watch, traveling along city streets and county roads. I wondered how they worked and how could I do the same thing on my home layout?

Frankly, the principle behind them is pretty simple. Each vehicle contains a rechargeable battery, motor, and magnetic steering system that follows a steel wire buried in the road surface. Remember that Miniland is built to 1:20 scale, so there's lots of room inside a vehicle to fit a battery, motor, etc. But what about doing the same in N scale?

The Faller "Car System"

Thanks to Faller it's relatively easy to add animated trucks and buses to your N-scale layout. Called the Faller "Car System," these miniature vehicles operate in a similar fashion to the much larger Legoland vehicles. Each Faller vehicle contains a rechargeable battery, mini can-motor, magnetic steering system, power switch, and charging socket. Riding on rubber tires, the front axle steers the vehicle using a strong magnet mounted on the steering linkage. The magnet follows the steel guide wire that the modeler conceals within the road surface. There are different ways of concealing this wire that we'll discuss later in the review.

Also inside the vehicle is a miniature magnetic reed switch that, when activated, causes the vehicle to stop. For those not familiar with reed switches, they operate like a basic on-off, single-pole-single-throw toggle switch. The contacts are magnetic and when placed in a magnetic field, they either open or close depending upon the design. The Faller vehicles have normally closed reed switches that are wired in series with the power switch. When you turn on the power, the motor propels the vehicle along the wire. By placing an electromagnet under the road surface at strategic locations, you can stop the vehicle by activating the electromagnet. As the vehicle approaches the active electromagnet the reed switch in the vehicle is forced open, interrupting the power to the motor and causing the vehicle to stop. Once the electromagnet is turned off, the reed switch closes and the vehicle starts moving again. Using this basic approach, Faller has designed traffic controller modules that can regulate the flow of traffic on your model streets.

Starter Set Components

Basic starter sets include everything you need to add animation to your streets. The starter set comes with one vehicle, a charging unit, steel guide wire, road-building compound and color, electromagnetic "stop station," and full instructions in both German and English. The vehicle included with our starter set is a Mercedes-Benz O305 postal bus, measuring approximately 35 feet in length.

The vehicle included with our starter set is a Wiking Mercedes Benz O305 German Post bus. On a full charge, the scale speed of the bus was measured to be approximately 50 MPH.

Faller sources their vehicle models from other German companies (the bus in our set is a Wiking model) and adds the drive mechanism and electrical system.

Various starter sets are available, differing only in the vehicle provided. You can also purchase additional vehicles separately. At the current time, only trucks and busses seem to be available in N scale; I haven't seen any cars (I suspect the motor/battery combination is too large to fit inside).

Although not reviewed here, the Faller Car System is also available in HO scale and offers an extensive line of HO vehicles, including trucks, buses and cars, and operating accessories. You can see these by visiting the Faller web site, but the English pages are limited and somewhat difficult to navigate.

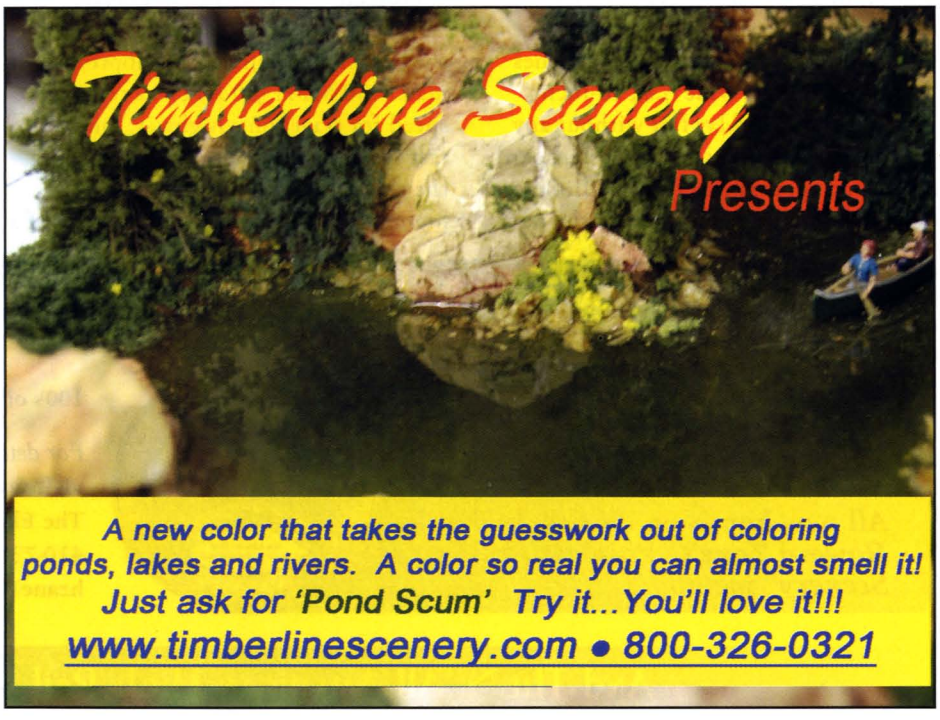
Faller offers a "Model Making Made Easy" book (Item 190846) that provides tips and tricks for the Car System line; unfortunately it is available only in German.

Installation

Installing the steel guide wire is relatively easy, depending upon the installation method chosen and the complexity of the loop on which you intend to operate the vehicle. Starter sets include 10 meters (about 33 feet) of guide wire; additional wire can be purchased separately. The instructions explain two methods of installation, each with advantages and disadvantages. The first method involves using tape to attach the guide wire to the layout surface then covering the guide wire with the included road-building compound. This method makes it easy to install the guide wire; however, it takes quite of a bit of road-building compound to build up the road surface on both sides of it. If you don't build up the road surface enough, the guide wire will be visible as a bump down the middle of the road. If you build it up too much, the guide wire may be buried too deep to be effective. The instructions do not provide a quantitative measurement of guide wire depth, other than advising that it should be "just covered" with road-building compound.

The second method involves embedding the guide wire in the layout surface, by cutting a groove in the surface and gluing the guide wire in the groove. This is more difficult than the first method; however, it takes less road-building compound to conceal the guide wire and build the street. For soft layout surfaces, such as those made with foam, cork, or Homasote, you can easily cut the groove with a hobby knife, then press the guide wire into it using a flat screwdriver. For hard surfaces, such as those made of plywood, you may want to consider purchasing an electric groove-cutting tool available from Faller. With an MSRP of $200, it requires a considerable investment but creates the perfect groove for the guide wire.

In addition, I devised a third method. It starts with attaching the guide wire to the layout surface as in the first method. Since the guide wire measures 0.4 millimeters (0.016 inches) in diameter (approximately No. 26 AWG), you can use 0.02-inch styrene sheets to build up the road surface on both sides of the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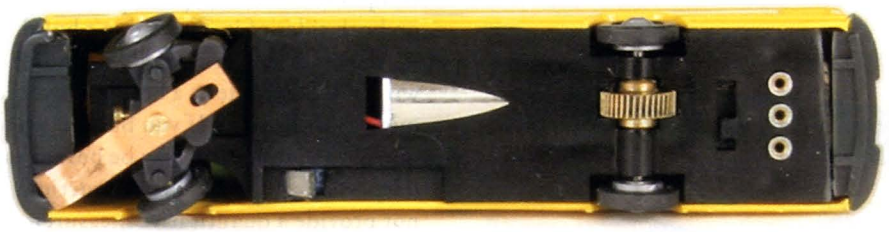

Each Faller vehicle contains a rechargeable battery, mini can-motor, magnetic steering system, power switch, and charging socket. Riding on rubber tires, the front axle steers the vehicle using a strong magnet mounted on the steering linkage. The magnet follows the steel guide wire that the modeler conceals within the road surface.

guide wire. Next cover the exposed guide wire and styrene sheets with a coat of the road-building compound, using much less than the first method requires.

Installing the electromagnet stop station is also described in the instructions. It involves mounting the device underneath the layout, no more than 3 millimeters (1/8 inch) below street surface, at a distance of 11 millimeters (7/16 inch) to the right of the centerline created by the guide wire. This aligns it with the magnetic reed switch concealed within each vehicle. The electromagnet is then connected to a 16 VAC power source with a toggle switch to control its activation.

Performance Testing

The instructions provide recommendations for minimum operating radius (150 millimeters or 6 inches), maximum roadway grade (12 percent), and roadway widths depending upon single or multiple lanes. I created a small test oval by taping the guide wire to a sheet of blue foam, then placing a sheet of posterboard over it to simulate the road surface. The test oval measured 24 inches long by 20 inches wide (i.e., 10-inch radius curves) and lay flat without any grade. The thickness of the posterboard measured approximately 0.2 millimeters (0.009 inches). During some of the test runs I raised one end of the layout to simulate various grades. This was no doubt a quick and dirty test oval, but the bus navigated it without difficulty.

The instructions recommend seven hours of battery charging, using the charging unit included in the set. To test battery endurance, I first ran the bus until the batteries died (the set was shipped with some level of charge in the batteries). I then charged the bus for the recommended time. Next, I placed the bus on the test layout and let it run, and run, and run. I alternated the direction of travel between clockwise and counterclockwise each hour to ensure both directions were exercised. Finally, after five hours of continuous running, I decided to end the test and give the little bus a rest. No doubt it would have gone longer, but it was already past my bedtime. I was very impressed with the running time, even on this small test oval. Of course, "your mileage may vary" depending upon complexity of the route, the radius of the curves, and the presence of grades.

On a full charge, the scale speed of the bus was measured to be approximately 50 MPH (80 KPH), a reasonable speed for travel on a highway, but too fast for downtown city streets. During the run, the bus emitted a noticeable motor whine, one that reminded me of a mosquito buzzing around my ears (especially after sitting in the same room with the bus during endurance testing).

This particular bus does not include headlights or interior lights, although some other vehicles do. The addition of lighting will reduce running time, of course.

Cleaning and lubricating instructions are included. Replacement tires can be ordered from Faller, as they will wear out over time. Other spare parts are also available directly from Faller.

Here we see the relationship between the steel guide wire, surrounded on both sides by styrene used to build up the street, and the magnet-guided steering. In this example posterboard is used as the street surface, however, you can also use the road-building compound included with the Faller starter set.

Closing Thoughts

Why should trains be the only motion on a layout? Why not add animation to your streets too? The Faller Car System makes it very easy to add moving vehicles to the landscape, providing yet another source of realism and entertainment to your model railroad empire. And your visitors will wonder just how they work!

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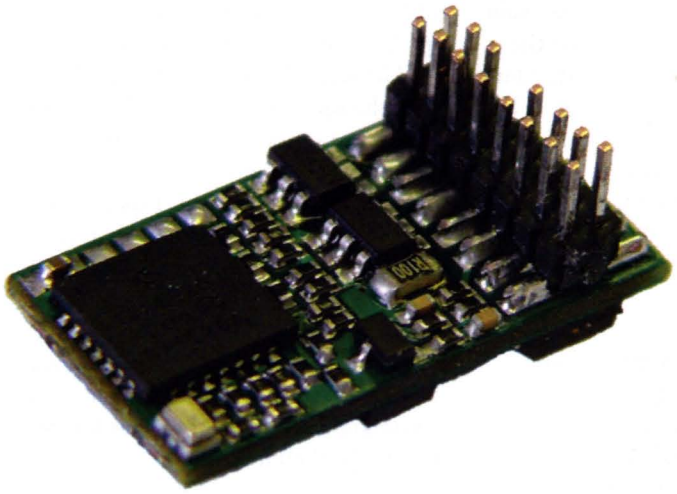
Zimo produces decoder with new PluX interface

DCC — Zimo has announced their first decoder with PluX interface. According to an announcement from the company, "Compared to the already existing 21-pin interface (a Märklin design standard), the PluX connector utilizes the pins better because none of them are needed for C-Sinus motor configurations."



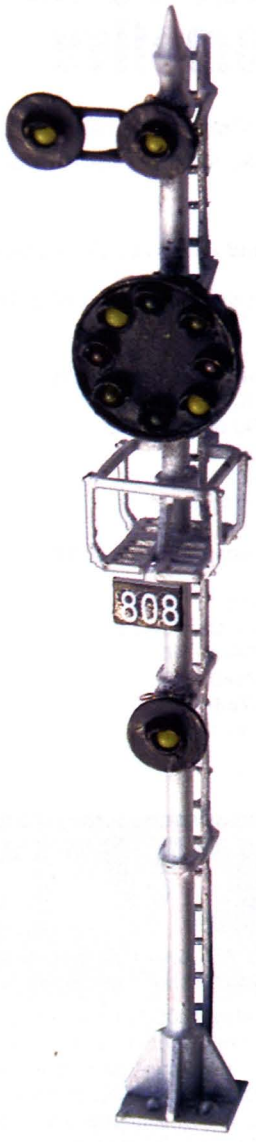
Zimo has stated the PluX will be available in three versions: 8-pin, 16-pin, and 22-pin. The MX64P16 comes with a 16-pin male plug (15-pins plus a key to prevent installing the decoder incorrectly). At least two manufacturers, Rocco and Fleischmann, reportedly will introduce engines with the 16-pin PluX interface later this year. The size and the pin-out of the 16-pin PluX decoders are standardized (NMRA-DCC RP 9.1.1; NEM acceptance is expected soon) at 20 x 11 x 4mm (.78 x .43 x .15 in, measured without pins).

Zimo states, "The MX64P16 corresponds in most parts to the MX64D (ZIMO decoder with 21-pin interface) but will receive components capable of withstanding direction-change pulses from old AC transformers (i.e. Märklin), if necessary. Driving characteristics, features, and CVs are identical to the ZIMO MX620 and MX64D decoders; future software updates will also be offered for all three decoder types (updateable with the MXDECUP update module or MX31ZL system cab). The MX64P is also RailCom capable, as are all ZIMO decoders."

The MX64P16 features: Constant total power rating 1000 mA; motor 1000 mA, function outputs 500 mA each; Peak power 2000 mA; 4-function outputs at the PluX connector; additional function output for LED's as solder pad; is over-current and over-temperature protected; designed for all DC and coreless motors; has the latest generation ZIMO motor control, ZIMO momentum settings ("normal" according to NMRA, "adaptive," and "exponentiell"), shunting key functions ("low gear" speed, momentum reduction, or cancellation), time-controlled uncoupling and "coupler waltz" (automatic coupler-unloading, uncoupling and moving off), complete NMRA function mapping, and ZIMO extensions; US lighting and other lighting effects; SUSI interface at the PluX connector; DC, HLU, ABC and Märklin brake methods; ZIMO loco number identification; select from two different versions of "constant braking distance"; RailCom (at the very least for on-the-main CV read-outs, address and actual speed information; on-going software expansion); and user software updates without opening the engine (as with all ZIMO decoders). The MX64P16 will retail for $49.00 (Canadian). Other ZIMO decoders with the PluX connector are planned, including sound decoders, and miniature decoders, etc.

Zimo Agency of North America, 1195 Velrose Dr., Kelowna, BC V1X 6R7; Phone/Fax: 250-765-7017; E-mail: info@mrsonline.net; www.mrsonline.net

New B&O light signal from N.J. International



HO — N.J. International has announced a new B&O color position light signal (#1214). The signal is made of brass with LEDs, and features a full disc of 8 lights as originally used: red, white, green, and amber. The B&O signal consists of a double top marker and single lower marker, and retails for $39.99.

NJ International Inc., PO Box 1029, Higley, AZ 85236; 480-219-4135; Fax: 480-219-4138; E-mail: signals@njinternational.com; www.njinternational.com

REVIEW DCC

MRC's 1820 Sound decoder offers easy installation for Athearn's RS-3 Locomotive

New Decoder features 28 functions, Alco 244 sounds

Review and Photos by John Sipple

1820 decoder for Athearn RS3, MSRP: $89.98

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WHEN Athearn elected to revisit and overhaul the old MDC/Roundhouse Alco RS-3 diesel locomotive, the end product was enthusiastically received. I reviewed that product and found it to be an amenable machine with Athearn's Quick-Plug board to make decoder installation very easy.

As easy as it was to add a decoder, the RS-3's "twinkie" body doesn't leave a lot of space available for large capacitors and speakers. More than that, with the Quick-Plug board in place, there was even less room to add a sound package.

MRC, who supplies the sound decoders for Athearn's sound-equipped locos, came up with a special after-market solution. It starts with the reality that the Q-P board is rather similar to a standard "drop-in" decoder in physical form. That means, if they could create a board to follow that form, you'll have a winner. By replacing the Q-P board, they capitalize on the extra space and use the loco's native wiring.

Some realities

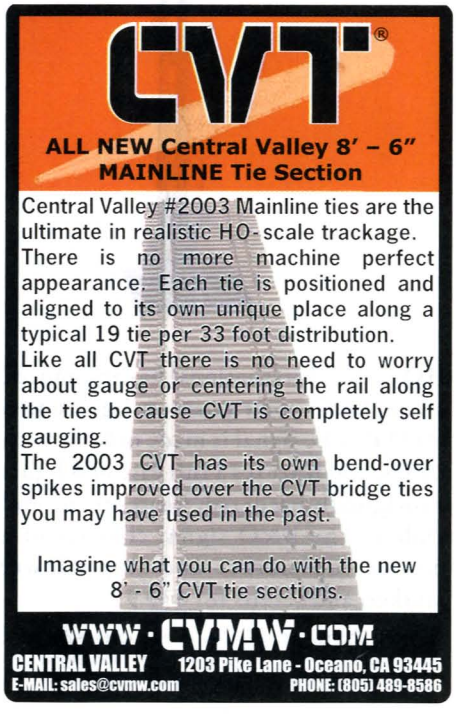
To put a speaker into this environment would be a challenge. There are enough stray wires and tight confines without having the speaker and one or more capacitors on the end of wires where they'd have to find a safe location. MRC took the bull by the horns and mounted speaker and caps on the one board, keeping them down to a size where they will fit inside the shell.

Obviously, that would cause some trade-offs. First, the capacitors are smaller than in some other sound systems. The caps serve a very important purpose, depending on how they are used. When used with a larger power amplifier, they help to boost bass response and improve sound quality. Then, capacitors can be used to smooth over the effect of dirty track, keeping your sound running smoothly. Of course, large caps can bedevil some DCC systems since caps are charged when the power is first applied. That leads to a larger load and may look like a short circuit to some systems. So the smaller caps are a positive for the MRC 1820, but they do reduce the sound quality and dirty track enhancements.

The second issue with this design is that the speaker is a very little guy. Size equates to sound fidelity in a speaker. Adding the proper baffle is also important. As a bass player, I specialized in thunder and earthquakes, but my speaker cabinet had four 10-inch drivers pumping out 300 watts, all of this weighing over seventy pounds! The speaker used on the MRC 1820 is small enough to fit right in your ear! The board offers a vestigial baffle, but the space left over under the shell helps.

Installation

The Q-P board is connected to the wires of the locomotive via the same push-holders used on "drop-in" decoders.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Here's a handsome RS3, the former Roundhouse product with some significant improvements, from the paint on the outside to the works under the hood. Great Northern 230 is a good running machine.

All of the wires are black, so don't expect color assistance, but mostly you don't need it. Wires go to predictable places. The wires to the lights are both observable and traceable. The left side pickup wires from the wheels go to specific tabs; the right hand pickups are frame-grounded and so the right side board screw makes that connection.

I chose to solder all the connections instead of reusing the push-holders. I've had enough problems reusing those little clips that I've found soldering to be vastly superior. If you are careful and install the motor wires in the proper orientation, just as they had been on the Q-P board, you'll get a pleasant surprise.

The Athearn board made the short hood forward even though the end of the long hood sees the telltale "F" that indicates what is actually supposed to be the front. The MRC board corrects this discrepancy. True, you can do that with CV29 programming, but I'd prefer to have it hardwired that way.

No matter whether you use the clips or solder the connections, be sure your first stop with the finished product is onto an actual programming track. If you have made some sort of wiring mistake or a stray strand out of the wires gets across something, a program track will detect it without freeing the smoke. Mine passed that hurdle, and so we moved on to testing.

Operation

Everything worked just as it was supposed to do, first time out. Long hood was forward, the sound system worked, and the locomotive responded to the throttle. Then came my first impressions, which always count. Those of you who complain about loud sound-equipped locos will love this one. The sound was there but among the weakest of the array

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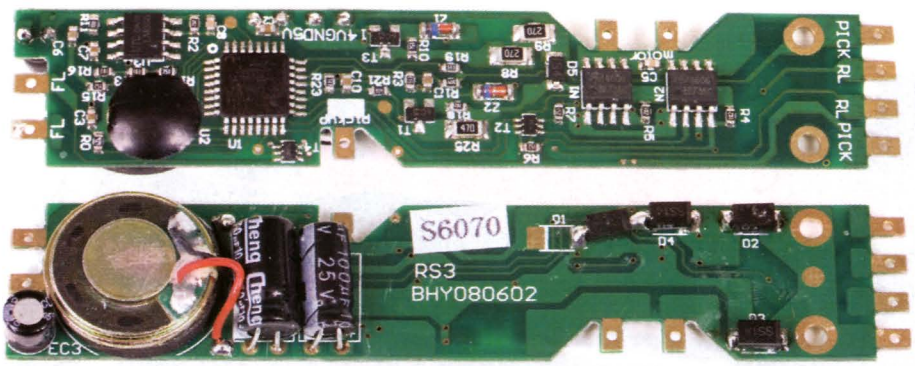

This shot shows both sides of the MRC 1820 board for the RS-3. The upper image is the top of the board and the bottom reveals the small speaker. Nine contacts hook up the board.

of sounders I've got around the premises. Not only is the speaker small, apparently so is the sound amplifier. According to the instructions and consistent with other MRC Sound Decoders I've tested, there is no overall volume control, either, though all the individual sounds are set at full volume.

This locomotive was part of a five-sample review I conducted back in April 2006 but which didn't make it into print for a couple of months. Back then it was equipped with a regular silent decoder complete with Back EMF, which was good for this particular drive. The MRC Sound Decoder does not have Back EMF regulation and its kickstart is at full value, meaning there was nothing more I could call for, and this loco wanted some more. It frequently wouldn't start until speed step 5 or more but could then be turned back down to 2 or 3, and I could never get it to run down at 1 scale miles per hour, a standard I like to have, if I can get it.

Programming CVs

Those of you who have been with me in my "Thinking of DCC" column will recall that I have taken the industry to task for failure to maintain a level of compatibility, both with NMRA and also the expectations of actual DCC users. In that respect, the implementation of basic CVs is consistently disrespectful in this and other MRC Sound Decoders. If decoder makers don't adhere to the rules, then the next generation of command stations for DCC will be unable to be competitive against some very slick proprietary systems. This, in turn, starts DCC down the slippery slope to oblivion.

NMRA makes most of the basic Control Variables (CVs) optional (even if our readers don't), but if manufacturers choose to implement them, they are then required to conform to the settings for each particular CV. So we turn to Recommended Practice-9.2.2 which says of CV2, "Vstart is used to define the voltage drive level used as the start voltage on the motor. The voltage drive levels shall correspond linearly to the voltage applied to the motor at speed step one, as a fraction of available rectified supply voltage. When the voltage drive level is equal to zero, there shall be zero voltage applied to the motor. When it is at maximum '11111111', the full available rectified voltage shall be applied." For those of you who don't understand binary math notation, "11111111" is equal to 255 in standard decimal notation and requires settings from 0 to 255, while CVs 2 through 5 on the MRC 1820 are from 0 to 32. That is completely and pointlessly non-standard.

CV6 is even worse, offering three choices, "Linear," "Slow Increase," and "Fast Increase" instead of what is stated in the RP. In consisting, CV19 works as it is supposed to, but CV21 is non-standard and CV22 is non-existent. All of the volume control CVs work on a scale of 0 (silent) through 3 (full volume), offering an extremely limited range of sound control. At one time I asked MRC for a clarification of why they used only 0 to 32 on those particular CVs, and the reply I got was something about them interpreting that as a hex value. Since Hex 32 equals Decimal 50, and Decimal 32 equals Hex 20, this is just gibberish.

On the bright side, none of these unstandard developments prevent the decoder and the loco it drives from being usable, though it may have some impact upon how well you can dial it in with another loco. I tried setting the RS-3 to CV6=1 and found I could get starting speeds down to 2 SMPH, down from a minimum speed ranging between four and seven. The mid-speed went down substantially, too, so this turned our locomotive into a better switcher. There is no method here to fine-tune the middle range so that it will function together with another locomotive in a lashup, however. The restricted range of the other CVs also limits the fineness of adjustment.

I was able to use F12 to change the diesel engine sound from the Alco 244 to an EMD 710 to an EMD 567B,

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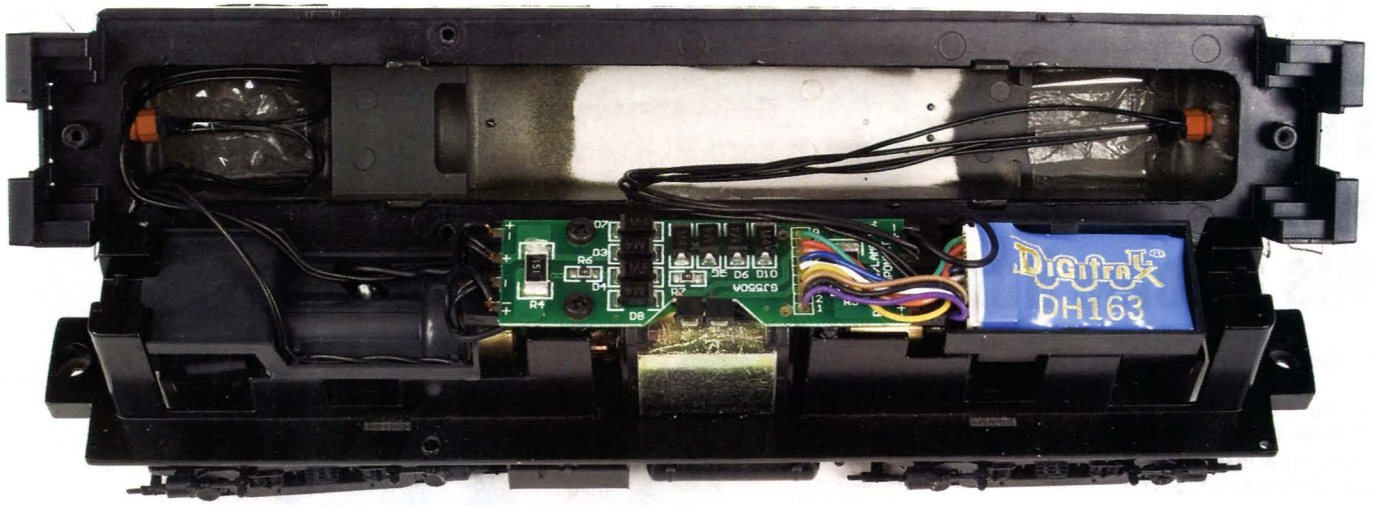
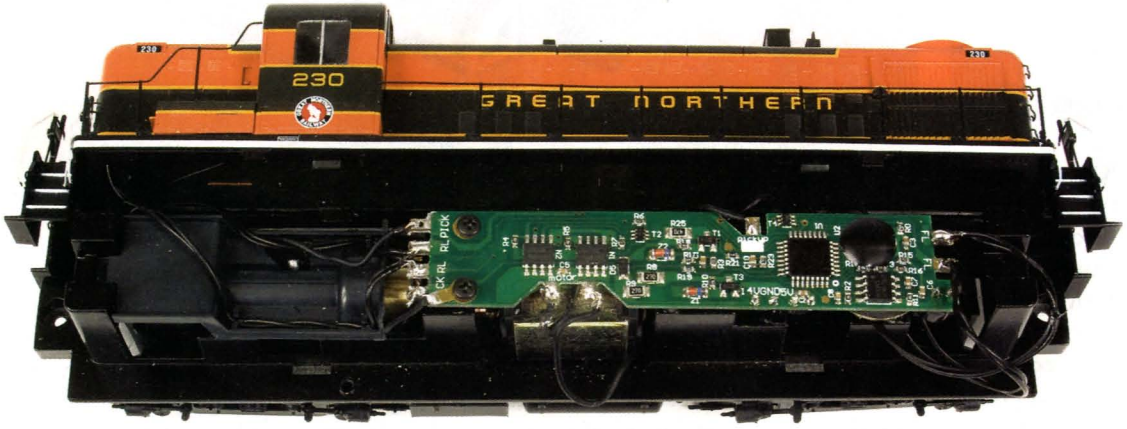


Here's the way GN 230 looked inside after its review. The DH163 sits in a tray thoughtfully created for the purpose. I found it necessary to remove the tray when installing the MRC decoder or I couldn't get the shell to sit down all the way.



As you can see, I chose to solder the contacts. I used a small, 15 watt soldering pencil with fine, silver solder. Removing the old board and installing the new one took about a half hour.

into silent mode, and back to the Alco again. We have extensive possibilities in horns and bells, though the default is fine and rather quiet for each. I thought about trying to find an analog volume control on the board and then gave this up as not desirable, since more volume to the little speaker would come out as noise, not fidelity.

The Alco 244 really has an authentic property about it, including the syncopated idle. If you press F8 three times, the engine sound shuts down. Hit F8 again and it starts with an authentic Alco starting sound. Each of the various engine sounds has its own shut down/sound package, and so you can adapt this decoder into any model locomotive that would have an EMD 567, 710, or Alco 244. You can then choose the bell and horn that best suits the locomotive, in your opinion. That flexibility is a very bright spot in this review and shouldn't be taken lightly. My feeling is that the 710 sound could also pass for an EMD 645 in many cases, since the 710 is just a longer stroke version of the 645. These would all be V-16 EMD engines, the 567B without the turbo and the 645/710 with turbos. It would not address the V-8, V-12, or V-20 models, however.

Wrapping it up

This is an interesting product, because it reaches into a locomotive that has a lowered long hood and wouldn't easily support an aftermarket sound decoder. At the same time, the Athearn/Roundhouse RS-3 is a compelling product for which many owners would like to trick-out with sound. So here comes a product with some pluses and minuses to be considered. My guess is that many users won't care much about the non-standard parts and may not be bothered by the limited fidelity. The ability to use this decoder in non-Alco loco models is a much-appreciated feature, and easy installation doesn't hurt a thing. The rest is up to you.

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Review and Photos by Dick Karnes

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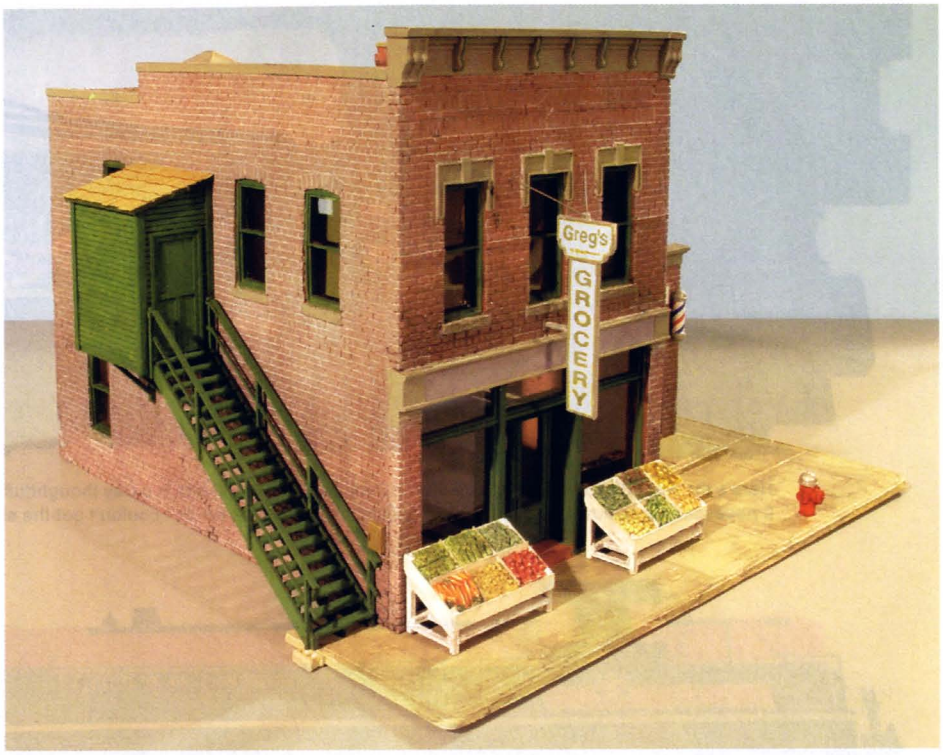

The laser-cut wood staircase and breezeway really set off the left side of Greg's Grocery. It could lead to the proprietor's living quarters or a suite of professional offices.

GREG'S GROCERY is a free-lanced structure typical of a multitude of small-town North American commercial structures built in the late 19th and early 20th centuries. The upper floor is meant to house the grocery proprietor's family, but could instead host dental, legal, or other professional service businesses. The annex next door is designed as a barbershop, but it could also be anything else the modeler might want to represent. Indeed, alternate signage included in the kit would make this annex a real estate business. The finished building's footprint, including sidewalks, is approximately 8.5 inches square.

The kit features cast resin walls, sidewalks, chimney, skylight, ventilation ductwork, tile roof cap, storefront signs, barber pole, electric meter, lampshades, and downspouts; laser-cut wood stairway, breezeway, crates, skids, bench, and fencing; laser-cut wood produce stands with cast-resin fruit and vegetables; and cast resin details such as boxes, bottles, cans, fire hydrant, garbage pails, and cement blocks. There are over three dozen individual detail parts in all. The kit also contains a sheet of signage as well as stripwood for framing any of the several billboards on the sheet. All the modeler needs to supply are paint, wood glue, cyanoacrylate glue (both regular and gap-filling), and fine gravel (like HO ballast) to coat the roof.

Construction

Construction is straightforward with the aid of the well-organized, copiously illustrated 18-page instruction booklet. I deviated from the instructions in that I used cyanoacrylate (super) glue instead of five-minute epoxy, and had absolutely no difficulty. The instructions contain a complete list of tools needed to build the kit, including a modeling knife with No. 11 blades (lots of them!), needlenose pliers, diagonal cutting pliers, pin vise and No. 78 and 1/16 inch drill bits, modeler's files, straightedge, assorted paint brushes, tweezers, and clamps. I did not use any clamps because I was able to hold the structural components in place manually while my fast-setting super glue set up.

The instructions also list an airbrush for spraying the basic brick color. Although I have an airbrush, I found it more convenient to visit my local hardware store and purchase a spray can of flat lacquer in a suitable brick color. I completely painted my building's brick walls and added the mortar before assembling the walls to each other.

Be sure to read and re-read the instructions. Only after doing so for about the third time did I realize that I didn't need to glue the structure to a base as I constructed it. I did not use a base, as the instructions suggest, but rather simply used the sidewalk molding as a jig for assembling the walls to each other. Keeping the building separate from any base is important because the store's large front windows just beg for interior detailing, impossible to install if the structure is built as a closed box.

In particular, I had a lot of fun with the fruits and vegetables. The twelve rectangular blocks of produce, each intended to fit into one of the six "cells" in each of the two vegetable bins, are all cast onto a single resin sheet. I first laid out wide masking tape on my work surface, face up, held in place by face-down tape at each end. Then I placed the sheet of twelve blocks of produce on the tape. This made painting much easier. I used the same tape to secure all the small details for painting.

Contrary to the instructions, I placed the bin partitions in each display bin but did not glue them. I sanded each produce rectangle's sides on an emery board until it fit in its selected place in the bin. I did this such that the partitions remain squarely at right angles to each other. I did not glue the produce rectangles; glue is not necessary to keep everything in place.

The produce bins really add a lot to the store. This view shows off the barbershop. The fire hydrant and the sidewalk molding are included in the kit.

Instruction Help

There are some errors and omissions in the instructions:

1. The main roof should be cut to 3-13/16 inches wide, not 3-13/32 inches as stated in the instructions.

2. The instructions tell the modeler to install the roof supports 1/2 inch below the top of the walls. This measurement should be 9/16 inches, allowing for the thickness of the roof itself plus the half inch. The top of the finished roof should be 1/2 inch below the forward portion of the side walls and 1/16 inch below the rear portion.

3. Instructions for the stairway need elaboration. The square-end stanchions go at the top end of the railing, and the bottoms of the bottom stanchions need to be trimmed even with the bottom of the stair stringer. The caps at the small horizontal top of the railings should not be glued in place until after the staircase is attached to the breezeway. The notches in them must both face the same way, not mirror image of each other. Installing them last eliminates the need to explain which is which, and maybe get it wrong.

4. The kit contains a jig for assembling the bench slats to the bench framework. The idea is to place a strip of masking tape across the slats before removing them from their laser-cut carrier sheet, then tape the slats to the jig. Then the slats can all be glued to the bench framework while still attached to the jig. The illustration in the instructions has the jig almost invisible, so you will need to hold various parts of the jig against the bench framework in order to determine which portion of the jig fixture to use for the slats.

Once you have the slats firmly glued to the bench framework, don't try to peel the tape off the slats with your fingers or you will break the bench's cross supports. Instead, work the tape free with your modeler's knife, one slat at a time.

5. The template for the wire that holds up the front sign is incorrect. The long diagonals (the legs of the "V") need to be 1/8-inch shorter for the sign to sit vertical. Using the template without modification will cause the top of the sign to lean away from the building.

Grand River Models proprietor Barry Silverthorn tells me these points are being incorporated into instructions for kits not yet shipped.

Additional Thoughts

There is a nice feature of the kit that really saved me: Some of the carrier sheets have extra parts. I somehow managed to fracture one of the three breezeway support brackets, but thankfully there is a fourth one in the carrier sheet!

There are some elements of construction that are left up to the modeler. These include where to mount the chimney, roof hatch, and skylight; and whether to relieve the roof beneath the skylight or not. I centered the chimney near the wall that's shared between the grocery and the barbershop. I placed the roof access hatch above where the upstairs foyer would be, just off the breezeway. My skylight is centered near the rear wall. If I were to light and/or detail the interior of the second floor, I would have removed the rectangle of roof beneath the skylight. Because I am not doing that, I simply painted that portion of the roof black before installing the skylight.

Conclusion

This is a wonderful kit. I give it an A+ for attention to detail, ease of construction, and overall appearance of the completed model. This style of structure will be at home in city centers, older suburban shopping districts, and on Main Street in any farm-country town.

A lot of additional details are included in the kit. Shown are a bench, garbage cans, cartons of bottles and cans, small crates of berries, fence sections (ten in kit), produce crates (three in kit), and lots of palettes (skids). The fencing, crates, and palettes are built up of easy-to-assemble laser-cut wood components.

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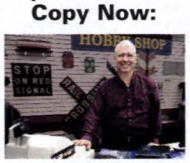

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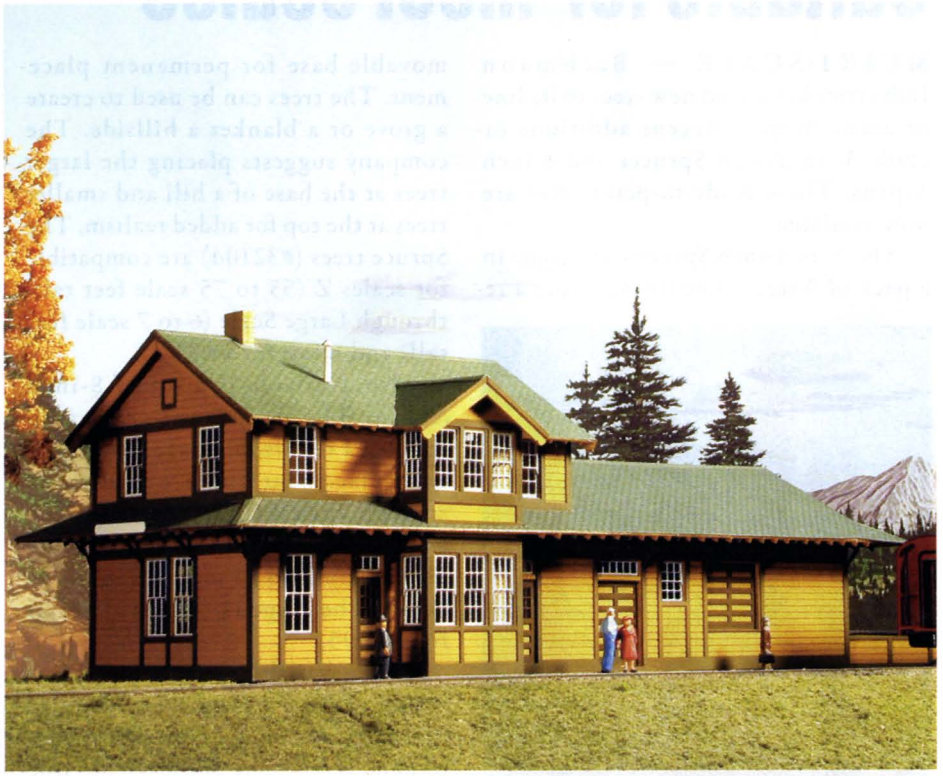
New Southern Pacific depot from American Model Builders



The new N-scale SP Depot was more commonly found in California, but similar buildings could also be found in Texas, Arizona, Utah, Oregon, and Nevada.

N — American Model Builders has released a new Southern Pacific two-story combination type 22 depot.

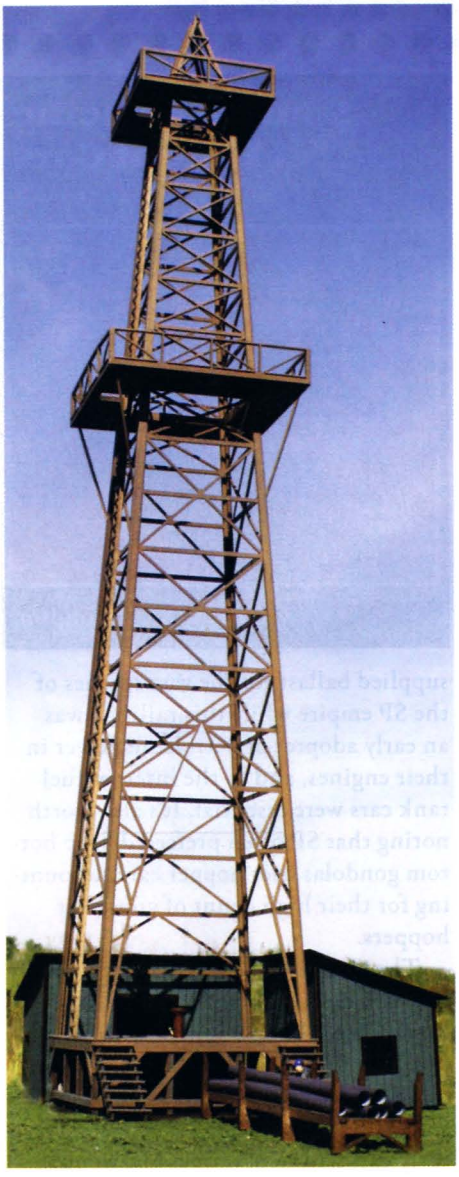
Over 70 Two-Story Combination Type 22 depots were built by the Southern Pacific Railroad between 1899 and 1910. They were more commonly found in California, but examples were also located in Texas, Arizona, Utah, Oregon, and Nevada. A prominent feature of the Type 22 depot is the two-story high rectangular shaped bay window.

The structure, which exhibited horizontal wood siding, typically measured 25 feet wide. The second story, with the same width of 25 feet, was usually 32 feet in length or longer. The freight room was built long enough to accommodate the SP's anticipated business at that location and ranged in size from 30 to 84 feet in length. Other variations between type 22 depots also existed such as loading dock size, window and door arrangements, and roof design, as well as mirrored floor plans. This SP depot offering is considered a "left hand" version of this famous depot design due to the location of its bay window. Examples of "left handed" type 22s could be found in California at La Verne, Palmdale, Grass Lake, and Chatsworth while numerous "right hand" versions existed as well.

The kit displays a 25-foot wide by 38-foot 6-inch long two-story portion with a 42-foot long freight room. The kit is laser-cut and utilizes Peel & Stick and Tab & Slot construction, and features 3-Tab shingles, loading dock with wood deck, positionable window sashes, authentic gable trim, and accurately shaped brackets. Optional detail parts include bay ticket window and three different chimney styles so the modeler can best match the model to the prototype depot they are representing on their layout. The assembled structure measures 6.75 inches long by 2.75 inches wide by 2.5 inches high. The loading dock adds 2.75 inches to length and 0.75 inches to width. The depot (#676) retails for $99.95.

American Model Builders, 8229 Brentwood Industrial Dr, Saint Louis, MO 63144; 314-646-8588; Fax: 314-646-8583; E-mail: laserkit@aol.com; www.laserkit.com

Glenwood No. 2 Oil Derrick from American Model Builders



O — American Model Builders has released an oil derrick kit. The construction style of this Derrick with its wood framing dates from the late 1880s and was in use in areas of the country where lumber was still plentiful as late as the 1950s. Derricks such as this one could be found almost anywhere that oil was commercially produced in the United States: from California's central valley, to Oklahoma and Texas, and up into central Ohio and western Pennsylvania. Standing over 27 inches tall, the Glenwood No. 2 Oil Derrick features laser-cut materials, Tab and Slot design for ease of assembly, and Peel & Stick doors, windows, trim, and decking. The kit includes platform with stairs, tower with Quadrupleboard, Crow's Nest, and ladders, hoist house and storage shed, and resin pipe and well cap. The Derrick itself may be finished as either a wood or a more modern steel tower. When assembled, the entire complex measures 9.75 inches long by 8.25 inches wide by 27.5 inches high. The derrick (#468) retails $169.95.

American Model Builders, 8229 Brentwood Industrial Dr, Saint Louis, MO 63144; 314-646-8588; Fax: 314-646-8583; E-mail: laserkit@aol.com; www.laserkit.com

Kanamodel releases new ice house

HO — Kanamodel has released a 100 ton Ice House that was modeled from Canadian National plans drawn in 1926 and supplied by the CN SIG. This kit has laser-cut walls, and Mt. Albert fuzz free scale lumber, custom cast windows, doors, and simulated concrete base. Instructions with photographs are included. The suggested retail price is $44.95 and is available in the US from hobby dealers or www.besttrains.com.

Kanamodel Products Inc., PO Box 57585, Coquitlam, BC V3K 6S8 Canada; 604-522-6491; E-mail: info@kanamodel.com; www.kanamodel.com

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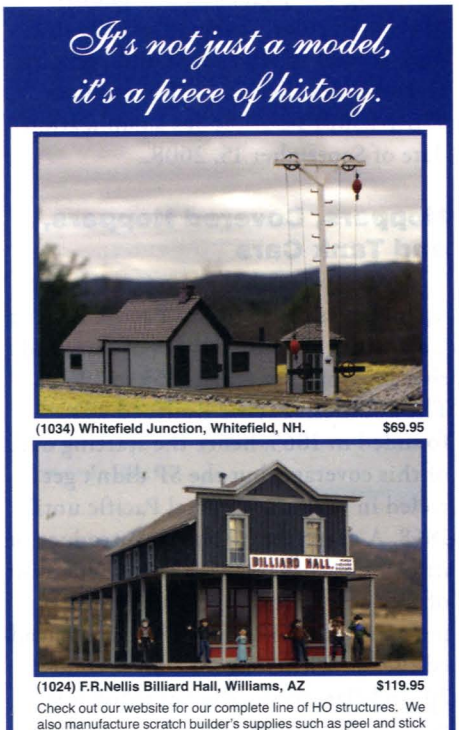
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REVIEW Book

Signature Press wraps up SP Freight Car Series

Hoppers, Covered Hoppers, and Tank Cars round it out

Review and Photos by John Sipple

Southern Pacific Freight Cars, Volume 5, MSRP: $70.00
By Anthony W. Thompson

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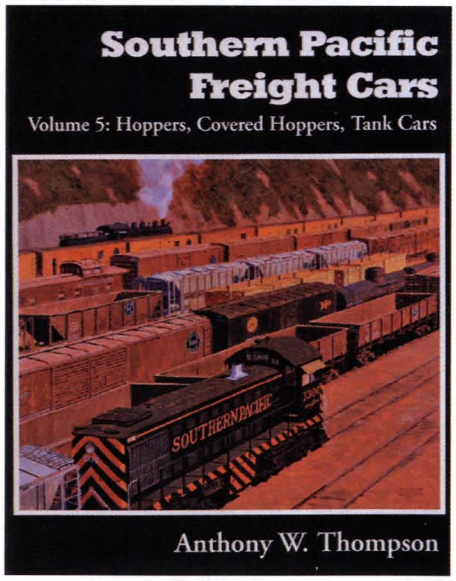


SOUTHERN PACIFIC Freight Cars, Volume 5 is a hardcover 8.5 x 11 inch volume with dust jacket featuring 448 pages and 578 photos, 77 of them in color. It also offers 109 drawings, several appendices, a bibliography, and an index. Bearing ISBN number 978-1-930013-24-7, it has a publication date of September 15, 2008.

Hoppers, Covered Hoppers, and Tank Cars

Anthony W. Thompson is wrapping up his series on Southern Pacific Freight Cars with these three types of cars, and the timeline runs from 1865 to 1965. The Southern Pacific Railroad was founded in 1865, hence the starting date of this coverage, but the SP didn't get rolled in with the Central Pacific until 1868. A graph in the book's Introduction informs us that in 1950, only 4.5 percent of SP's cars were hoppers while just 4 percent were tanks. For SP, boxcars headed the list with 56, gons were second at 20, and flats were a distant third at 9 percent. Tank cars were often run from private fleets, and in many cases, so were hoppers of one sort or the other.

Still, all of the freight cars need to be covered, and though their count was low, hoppers and tanks were significant rolling stock. Many of the open hoppers supplied ballast for the vast reaches of the SP empire while this railroad was an early adopter of petroleum power in their engines, and so the internal fuel tank cars were essential. It's also worth noting that SP often preferred drop bottom gondolas over hopper cars, accounting for their high count of gons over hoppers.

The open-topped hopper line actually began with coal cars. These were flat cars with coal sides. With the dawn of the Twentieth Century, hoppers began to assert themselves, though some were called "hopper-bottom gondolas." These early cars had steel frames but wooden sheathing on the sides. The wood was soon replaced by steel sheets.

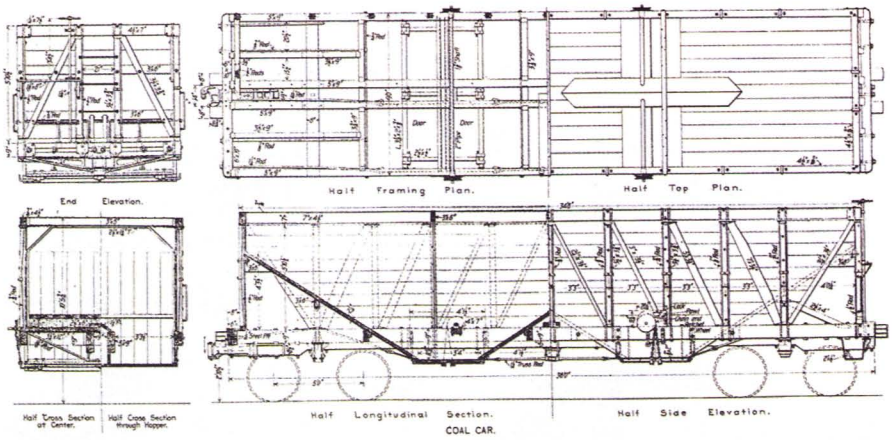
Many of the ballast hoppers were built with a box about the same size as used in a two-bay coal hopper, but the hopper dumps were arranged longitudinally. Further, many of them were equipped with dump designs that gave the choice between dumping between the rails or outside of them. Later designs improved the control of how much and where the ballast was placed.

Covered Hoppers arrived on the SP right after World War II, in 1946. Most of the first group went to work in cement service. Concrete for building was in high demand and the covered hoppers jumped in to grab that business. Loading was through eight square top hatches and unloading through the two hoppers was through Enterprise slide gates, two to each hopper.

In the sixties, many of the older cement service cars were given a lining to allow them to carry edibles such as grain. A very nice drawing depicts thorough top, side, and end elevations for the modeler or generally-interested. A photo of a car during assembly shows how each end of the car was isolated to the hopper on that end. It was possible to load corn in one end for outlet through the two gates for that hopper while wheat berries went into the other end.

Interestingly, SP converted some older, steel boxcars to covered hoppers by putting round loading hatches in the roof and outlets at the bottom. Hidden from view were internal slope sheets. The type was generally used for sugar, and while some of the doors remained operable, sugar was neither loaded or unloaded that way — at least intentionally.

Here's one of the many SP tank cars set aside for diesel fuel service. Many more saw revenue duty hauling crude oil, sugar syrup, and numerous other commodities.



There are 109 drawings in the book, but this one is of a hopper-type coal car with single, wood sheathing. This is obviously a direct ancestor of the coal hopper car.

Tank Cars

SP and CP's first tank cars were the triple-tub type, and were then followed by rectangular wooden water tanks. Early wooden tanks were often used as auxiliary water tenders on trains that had to travel in low-water areas. These cars were often put to use in fire-train service.

By the 1890s, SP and its subsidiaries were purchasing horizontal, cylindrical steel tank cars, and the tanks were strapped down on special saddles mounted on the decks of flat cars. Next, the tank was somewhat recessed into the deck of the flat car and a bottom sheet was used to prevent leaking. Then came the CS-25A, a class of car made entirely of steel in 1903 when very few freight cars were all steel. Some 625 were constructed with their advanced fish-belly underframes. The book has drawings of the CS-25A and the CS-32 "Milton" type. A few of the CS-25A types survived until around 1959, having offered up over a half century of service.

The Harriman Era affected SP tank cars as much as it did every other car and locomotive design of the period, which began around 1904. Tank cars became Oil Cars and were designated by the letter "O" in classifications. CS-57 became Class O-50-1 in September 1904. These and the more numerous O-50-2 carried 12,400 gallons, usually oil. These tanks usually had heating coils to melt the crude oil until it would flow out the bottom discharge. Steam was supplied to these tubes.

Sugar processing along SP tracks began with fields of sugar beets which went to processing plants in side dump gondolas. Bagged sugar went to market in boxcars, but bulk sugar was either handled in the boxcars discussed previously or the special sugar tank cars that carried it as a heavy syrup. These cars had a white diamond painted up around the dome with a black "S" in the middle. This was another example of why SP had tank cars when other railroads actually owned very few.

Anthony's achievement

Thompson has given us a masterful treatise for our study of Southern Pacific freight cars. It is important to understand that while the history of this railroad was closed when it was swallowed whole by the Union Pacific, our discovery of that history still goes on. Everyday, someone sits down in an attic and opens a box with train photos, and perhaps one of them documents something suspected but never confirmed. Thus, an historian's work is never done.

This series does not weigh us down with a lot of narrative; textual information mostly comes through photo captions, and in that process, they combine with the photos to give significant information. Thompson meticulously documents classes of cars and even their declining numbers in service over time. The herd gets thinned until none are left.

Old black and white photos are treacherous items. Those that are properly exposed, with a rich representation of tonal values, often don't contain the information we most want. The photos with that information may be quick snapshots with the family Brownie, poorly framed with inadequate op-

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tics and a questionable exposure made worse by adverse storage over the years. In the end, the author and production staff end up fighting to make such images respectable, and we'll never know what was scrapped as being inadequate.

What I do know is that the wonderful, historic images in this book contribute mightily to the value. Thompson starts off his appendices with additions to the first four volumes, 38 pages of photos and drawings, including early boxcar cabooses made from single-sheathed boxes. So while the occasional photo of a train pulled by a Cab-Forward reminds us this is, indeed, Southern Pacific country, this is also a historical treatise on freight cars, of value to modelers and railfans everywhere.

An Mk-4 Mikado with a whale-back tender hauls a single covered hopper and a cupola-style caboose up Tehachapi in this image from 1952. Here's a train and a view that you can model!

Appendix Two is devoted to car diagrams, 27 of them and each one very valuable. Appendix Three contains the complete specifications for the Class O-50-2 "Oil Car." Appendix Four gives us the color drift panels, and this provides the reader with Southern Pacific Covered Hopper Grey, Southern Pacific Standard Visibility Yellow, Southern Pacific Standard Colonial Yellow, and Southern Pacific Standard Freight Car Red. There is also a Bibliography and a thorough index.

Thus ends a delicious series of books. Each book stands alone in its subject matter and yet each book is part of the whole series. I could see another book devoted to SP's myriad Maintenance-Of-Way cars. From the cranes to the snow plows, this would again expose this type of car for more than the railroad of focus. Each of these books has dispelled myths and confirmed beliefs, using the evidence from the past, and so I recommend them to any curious railroad reader, whether an SP fan or not.

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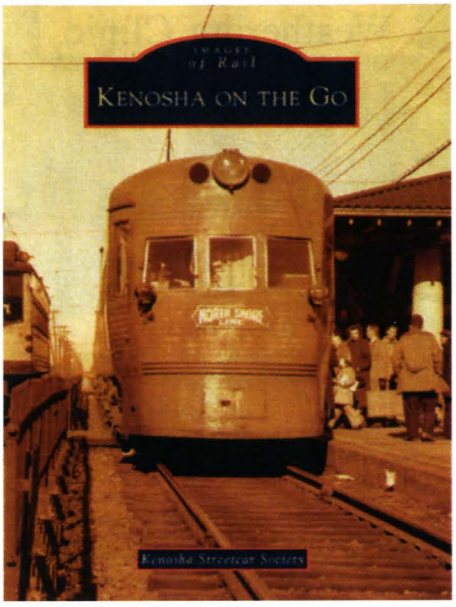
New book provides information on transportation in Kanosha



BOOK — Arcadia Publishing has released a new book, *Kenosha on the Go*. The book chronicles the 110 years of transportation in Kenosha. From the first interurban streetcar that reached Kenosha's northern city limits in 1897 to the existing transit system in 2007.

This five-chapter book includes all modes of transportation that served Kenosha — streetcars, trackless trolleys, gas and diesel buses, two electric interurbans, and steam and diesel on the North Western Railway.

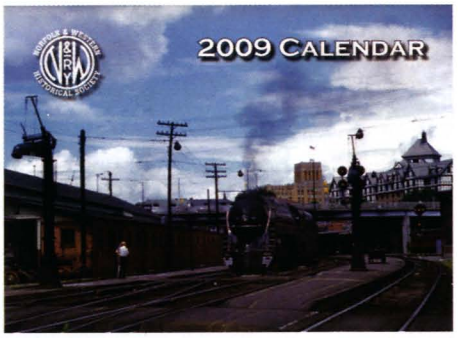
The last chapter is about the return of streetcars in the year 2000 after a 68-year absence. This untold story is of special interest since Kenosha is the only small, North American city to have this distinction.

Kenosha on the Go (ISBN -13-978-0-7385-5098-5) is available in paperback, has 128 pages, and has 217 black and white photos throughout the book.

It retails for $19.99.

Arcadia Publishing, 420 Wando Park Blvd, Mount Pleasant, SC 29464; 888-313-2665; Fax: 843-853-0044; www.arcadiapublishing.com

The Norfolk and Western Historical Society, Inc offers two 2009 calendars



CALENDAR — The Norfolk and Western Historical Society, Inc is offering two new calendars for 2009. One is an all-color calendar and one is a Classic issue of all black and white photographs. The Classic edition features black and white photographs of subjects found during the steam era on the N&W and the Virginian Railways.

The 2009 all-color calendar retails for $11.95. The Classic edition is $9.95.

Norfolk and Western Historical Society, P.O. Box 13908, Roanoke, VA 24038-3908; 540-342-0575; Fax: 540-342-7439; www.nwhs.org

New full color 2009 New England Railroading Calendar

CALENDAR — Mystic Valley Railway Society has released a new full-color 2009 New England Railroading Calendar. The calendar features twelve 8 inch by 10 inch photos, plus two covers, all on card stock opened to a full 10 by 16 inches, with space for notations. It includes scenes from Amtrak, Conway Scenic Railroad, CSX, MBTA, Metro-North Railroad, Mount Washington Cog Railway, New Hampshire North Coast, Providence & Worcester Railroad, and Shoreline East Commuter Railroad & Valley Railroad Company. The retail price of the calendar is $6.00 each.

Mystic Valley Railway Society, Inc., PO Box 365486, Hyde Park, MA 02136-0009; 617-361-4445; www.mysticvalleyrs.org

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Keller says good bye to a Great Model Railroad

W. Allen McClelland retires famous Virginian & Ohio layout

V&O numbers 2059 and 2050 lead a consist through a mountain pass on the world famous Virginian & Ohio, Gauley Subdivision. The layout by W. Allen McClelland was retired in March of last year.

DVD — An innovative, pace setting model railroad is no more. W. Allen McClelland's world famous Virginian & Ohio, Gauley Subdivision has come and gone. On March 16, 2008 Allen held the railroad's last open house. Due to physical limitations Allen and his wife have moved to a retirement home. About 200 V&O fans came to the final viewing to pay tribute to this legendary modeler and his HO layout.

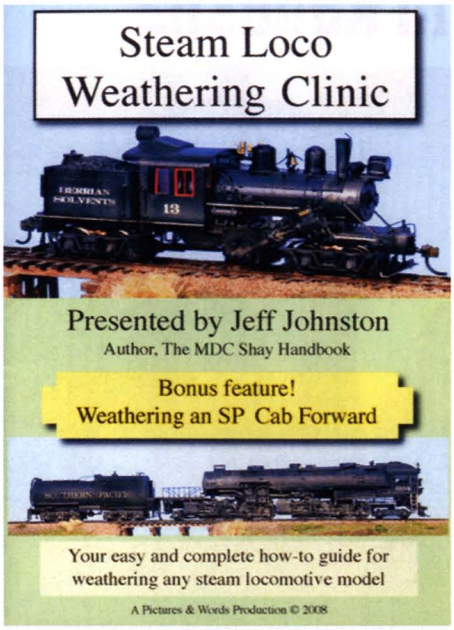
Since the late 1960s, Allen and his model railroad have been at the forefront of most of the advancements made in the hobby. He took the hobby from spaghetti bowl style layouts into the world of a complete miniature transportation system. Allen is responsible for most of what we take for granted today: linear design, walkaround control, staging yards, command control usage, weathering, computerized CTC, and his famous "good enough" philosophy.

This final version of the V&O was started in 2002 after the original V&O was torn out, and Allen moved to a new house. The Gauley Sub was planned as an extension of the old railroad. Although this version of the railroad was never completed, many scenes were finished to a level suitable for photography. However, the ideas illustrated by Allen are worth documenting, and are the subject of the 60th volume of Allen Keller's well-known *Great Model Railroad* series of videos. In this new feature, Allen will show you a new way to make a fascia, how to operate a staging yard, and how to make rocks out of pine bark. The V&O is a *Great Model Railroad* because Allen believed that the whole of a layout is greater than the sum of its parts, and that we should model a railroad not just railroad models.

As with all Keller videos in the Great Model Railroads series, there are plenty of pictures of trains moving around the layout. Some of the segments have prototype sound dubbed in to enhance the realistic effect of the model photography. The DVD is available at most dealers or direct from Allen Keller Productions for $45.00. Add $7.00 for shipping and handling if ordering direct.

Allen Keller Productions, 7410 Lebanon Church Rd., Talbott, TN 37877-8940; 423-586-7928; Fax: 423-581-6582; E-mail: allenkeller@earthlink.net; www.allenkeller.com

New DVD walks modelers through the weathering process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Author, The MDC Shay Handbook
Bonus feature!
Weathering an SP Cab Forward
Your easy and complete how-to guide for
weathering any steam locomotive model
A Pictures & Words Production © 2008

DVD — Pictures & Words Productions has released Steam Loco Weathering Clinic. The DVD presents complete step-by-step how-to information about weathering two HO-scale locomotives, a Bachmann Climax and a Broadway Limited AC-4.

Steam Loco Weathering Clinic was filmed in two segments. The first is a "live" presentation at the 2006 Pacific Model Loggers' Congress and covers, in a typical 45-minute clinic timeframe, the complete process from starting with the stock Climax and ending with the loco weathered and finished. Part two was filmed in Jeff Johnstons studio and workshop, and details every step needed to weather the Cab Forward and get it ready for the road.

The DVD includes paint blends, weathering chalk how-to, holding jigs, electrical connection considerations, wheel cleaning, and other technical details. Steam Loco Weathering Clinic retails for $20.00.

Pictures and Words Productions, 3405 Videra Dr, Eugene, OR 97405; Phone/Fax: 541-485-8203; E-mail: splco-mwry@comcast.net; www.pictures-and-words.com, www.trainvideosandparts.com

Catalog 46 available from Dallee

CATALOG — Dallee Electronics, Inc. has released *Catalog 46*. This catalog features coverage of Dallee's existing and new products, and is printed in full color. This edition includes sound products for trains and model boats, available in high-end and standard-type sound systems with three model types to choose from. They are offered for DC, DCC, Radio, Other Receivers, and Stationary Use, as well as the 1-1/2-inch operators. Sound systems with automated Horn/Whistle patterns for the "G" operator are also available, along with sound systems for the AC operators, as well as speakers in many different configurations and power ratings for use with many sound systems.

Also covered are lighting systems with variable output settings for any type of track power or stationary use, detection products that are compatible with most any system, their hand-held Yard Master throttle, grade crossing items as well as several different connectors, miniature lamps, ultra-miniature lamps, and LEDs, including the popular incandescent white LEDs.

Catalog 46 consists of over 54 color-filled pages and costs $12.00 via U.S. mail.

The *Model RailRoaders Wiring Guide #19* has also been released. It features updated and new drawings with existing and new products covering 58 pages. *The Model RailRoaders Wiring Guide* is $17.00 via U.S. mail. Both are offered at $25.00 via U.S. mail delivery. Additional postage is needed for orders outside the U.S.

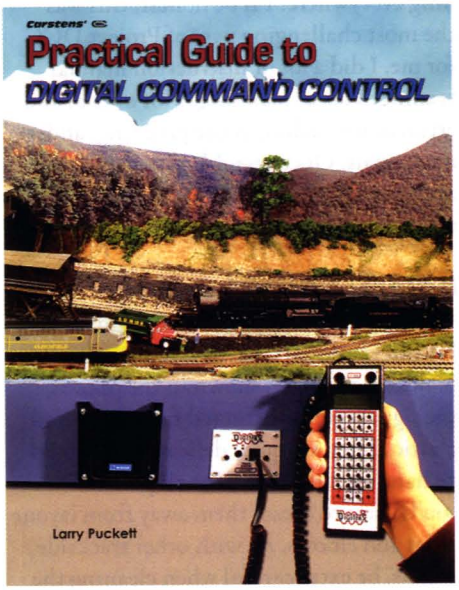
Dallee Electronics, Inc., 246 W. Main Street, Leola, PA 17540-1752; Phone/Fax: 717-661-7041; E-mail: info@dallee.com; www.dallee.com

New book approaches the modelers view of DCC

BOOK — Carstens Publication, Inc. has released *Practical Guide to Digital Command Control*. This new book approaches Digital Command Control from the modeler's point of view. Veteran Modeler and DCC author Larry Puckett dispenses with the technical jargon, and focuses on the information modelers need to incorporate DCC into their layouts.

Practical Guide to Digital Command Control (ISBN 978-1-59073-012-6) has seven chapters including the introduction, is printed in paperback, and has 112 all-color pages. The book also features a full index, a quick index that includes chapter sub-heads, a DCC manufacturer listing, and an extensive appendix with photocopyable charts for decoder programming, layout component list, and turnout route chart. The book retails for $24.95.

Carstens Publications, P.O. Box 700, Newton, NJ 07860-0700; 973 383-3355; Fax: 973 383-4064; E-mail: ads@rrmodelcraftsman.com; rrmodelcraftsman.com



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Project DCC - Integrating Operation and Automation — Part 7A, Signal System Wiring for Digitrax and Lenz

— By Phil Scandura

Back in November, we added remote control of out turnouts using accessory decoders. Over the next two months we'll leverage the already installed block detection circuitry by adding trackside signals for operating realism.

Up Front and Honest

No doubt you've already glanced at some of the photos in this installment. There's no shame in this, many of us like to look at pictures, although in this case those pictures are somewhat scary. Let's face it, there are lots of parts, wires and cables running everywhere! I'll be honest; this was the most challenging part of Project DCC for me. I did a lot of instruction manual reading, a lot of planning, a lot of trial and error, more reading, more planning, and more trials. Of course, I had to do it for multiple DCC systems; hopefully you'll only have to do it for one system.

Different Signal Types

Project DCC uses trackside signals from NJ International and Atlas (covered in Part B, next month). As shown in the photos, the signals are constructed from brass and plastic. They are quite delicate and should be handled with care. If at all possible you'll want to locate them away from layout aisles and elbows. As with other trackside details, be extra careful when cleaning the track — accidents happen and sooner or later you'll bump into one of the signals. Veteran modelers have told me that the best way to mount signals is on cork (such as roadbed cork), using a track nail or spike through the mounting hole. Avoid the temptation to drive the nail into the wood below the cork. In this way if you happen to snag the signal while working in the area it should easily pull out of the cork, instead of snapping off at the base.

Be sure to leave a "service loop" of signal wire under the layout so that the wires don't break when a signal is pulled up by accident. As noted in the photos, these signals use extremely fine wire, sometimes called magnet wire, that doesn't stand up to flexing and bending. If it does break (as happened to me on occasion) you'll need to scrape or sand off some insulation from the wire, then use a low-wattage soldering iron to repair the break. Insulate the connection with a drop of acrylic nail polish.

Depending upon the signal controller board chosen for your layout (i.e., Digitrax, Lenz or ZIMO), you may or may not need the NJI current limiting resistors. If you use the Digitrax SE8C and their Terminal Strip Mounting Kit (TSMK), you can remove the NJI resistors, since the TSMK already provides them. If you use the Lenz BM3 or ZIMO MX8S you MUST INCLUDE the NJI resistors because the Lenz and ZIMO products do not provide them.

Digitrax also markets a pseudo-scale signal, constructed of printed circuit board material, surface mount LEDs, and current limiting resistors (see the photos). The signal plugs directly into the Digitrax signal cables and is reversible providing both A1/A2 and B/C orientation (refer to Figure 2, pg 92). You can paint the mast and add aftermarket heads or dress-up kits to create low-cost, near N-scale signals (see the reference list). Project DCC decided to use the Digitrax signals mainly for testing and debugging since they are quite rugged and easy to connect/disconnect from the signal cables.

For the economy minded, you may want to use the Digitrax signals in background areas farther from the view of visitors, while reserving the more realistic NJI and Atlas signals for the foreground areas.

Planning, Documentation, and Testing

As I've said in previous installments, I'm thankful everything is wired on the top side of the layout for demonstration

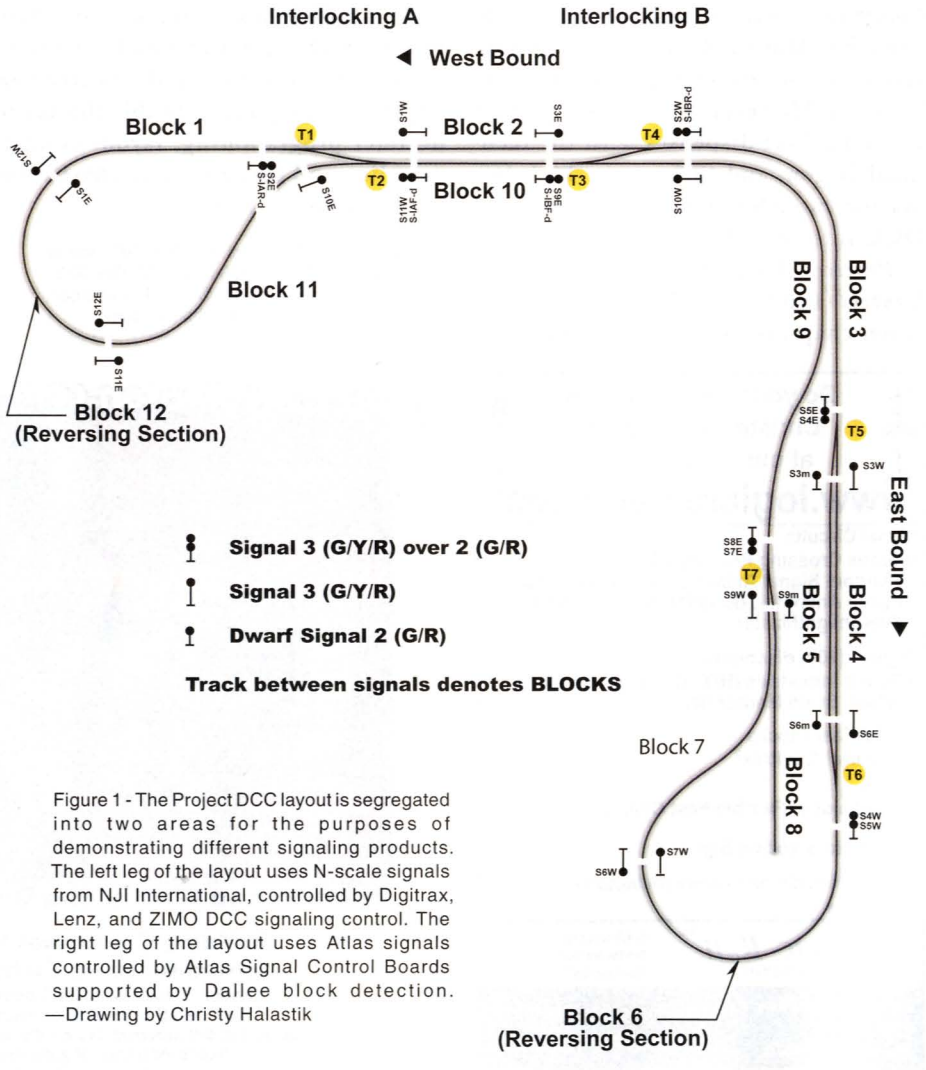


Figure 1 - The Project DCC layout is segregated into two areas for the purposes of demonstrating different signaling products. The left leg of the layout uses N-scale signals from NJI International, controlled by Digitrax, Lenz, and ZIMO DCC signaling control. The right leg of the layout uses Atlas signals controlled by Atlas Signal Control Boards supported by Dallee block detection. —Drawing by Christy Halastik

purposes. It is so much easier to wire out in the open. It forces you to be neat, plan where to run the wires, and even provides some level of self-documentation. It is hard work, but well worth it. Having said this, self-documenting layout labeling isn't enough. You'll also want to keep a notebook of wiring diagrams, configuration notes, etc. Refer to Table 1-F (pg 90) for an example of the signal configuration sheet I created for the Digitrax SE8C. Using this sheet, the Digitrax instructions, existing layout labeling (from previous installments), and the signal placement diagram (see Figure 1), I was able to install, wire, and test the signal system (similar methods were used for Lenz, ZIMO and Atlas/Dallee) in just over a weekend.

When installing the signals, TEST AS YOU GO. I tested each signal out of the package, using a 6 volt lantern battery and test clips (since the NJI signals already have current limiting resistors, I didn't have to worry about damaging the LEDs). While building the signal mounting board subassemblies, I tested each signal again (using the battery) to make sure I didn't break any wires while connecting them to the terminal strips. When I built the Digitrax signal ribbon cables (more on that shortly), I used a Digitrax signal mast to test each cable in both A1/A2 and B/C orientation. Finally, after connecting the signal cables to the signal subassemblies, I tested the entire end-to-end hookup one more time.

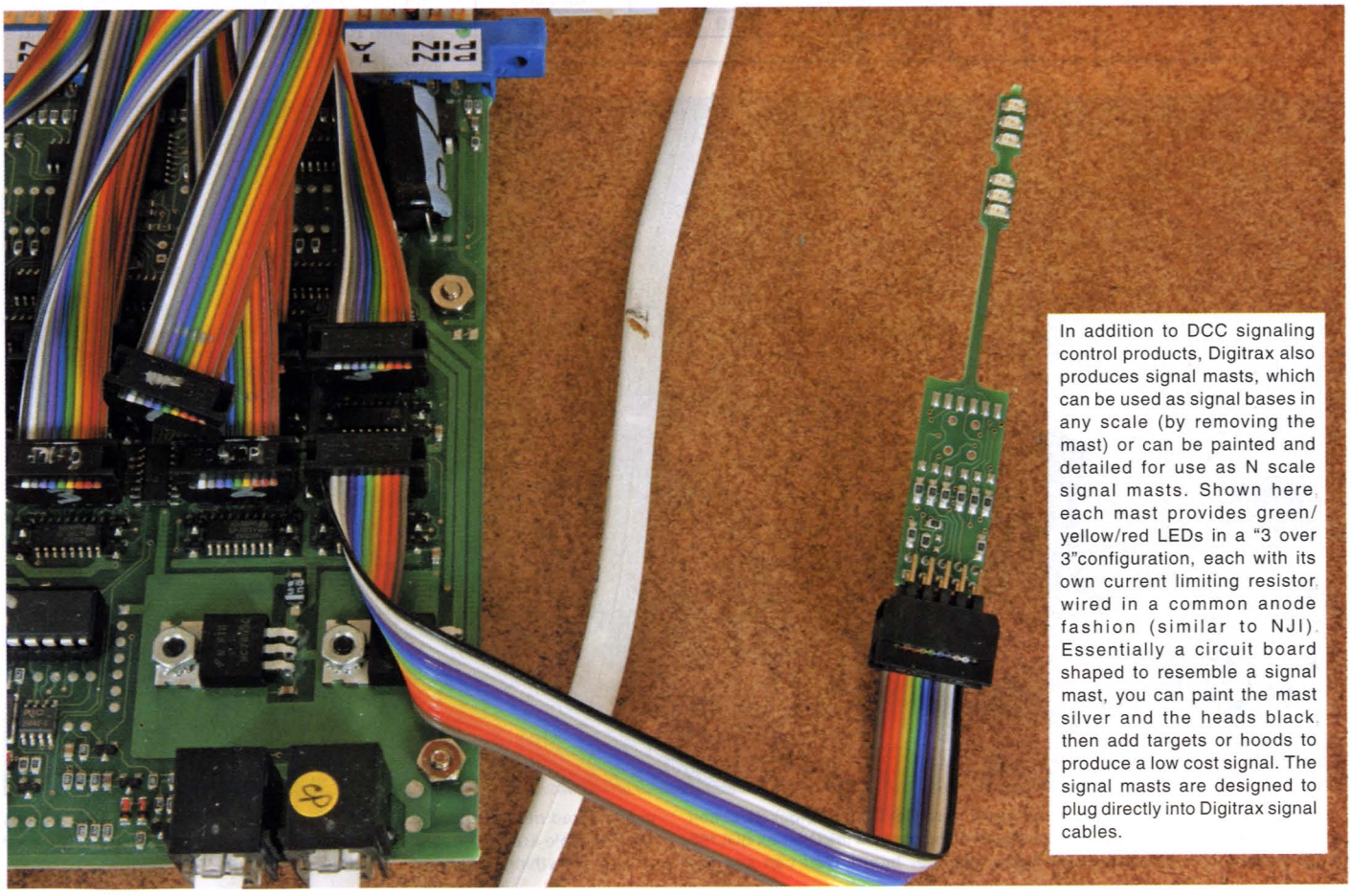
While this may seem like overkill, the idea of testing each step of the way ensured that I would catch problems or mistakes as soon as they happened, instead of days later when I plugged in the power! Similar methods were used to test the Lenz, ZIMO, and Atlas/Dallee wiring.

Digitrax SE8C

The Digitrax signaling system consists of several components, starting with the heart of the system, the SE8C signal decoder. Digitrax refers to it as a decoder, rather than a controller, because it works by decoding switch commands from the Digitrax command station. We'll talk more about that shortly. The SE8C can handle up to 32 signal heads, supporting several popular LED signal types. These include three LED heads with common anode or common cathode wiring, as well as bi-color LED searchlights with 2 or 3 wires.

In order to connect the SE8C to your signals of choice, first you'll need to make signal cables. The SE8C has eight cable headers on the board, each of which handles four signal heads. Digitrax offers the Signal Driver Cable Kit (SDCK) that includes enough materials to make several cables, depending upon the distribution of signals around your layout. The SDCK includes 30 feet of ten-wire ribbon cable and eight ten-pin sockets. A typical cable consists of a socket at one end to connect to the SDCK and up to four sockets distributed along the cable to connect to four signals. Here are some tips when making signal cables, based on my experience during Project DCC:

- Before you start, use a silver permanent marker (such as a Sharpie) to highlight the "pin 1" mark on each of



In addition to DCC signaling control products, Digitrax also produces signal masts, which can be used as signal bases in any scale (by removing the mast) or can be painted and detailed for use as N scale signal masts. Shown here, each mast provides green/yellow/red LEDs in a "3 over 3"configuration, each with its own current limiting resistor wired in a common anode fashion (similar to NJI). Essentially a circuit board shaped to resemble a signal mast, you can paint the mast silver and the heads black, then add targets or hoods to produce a low cost signal. The signal masts are designed to plug directly into Digitrax signal cables.

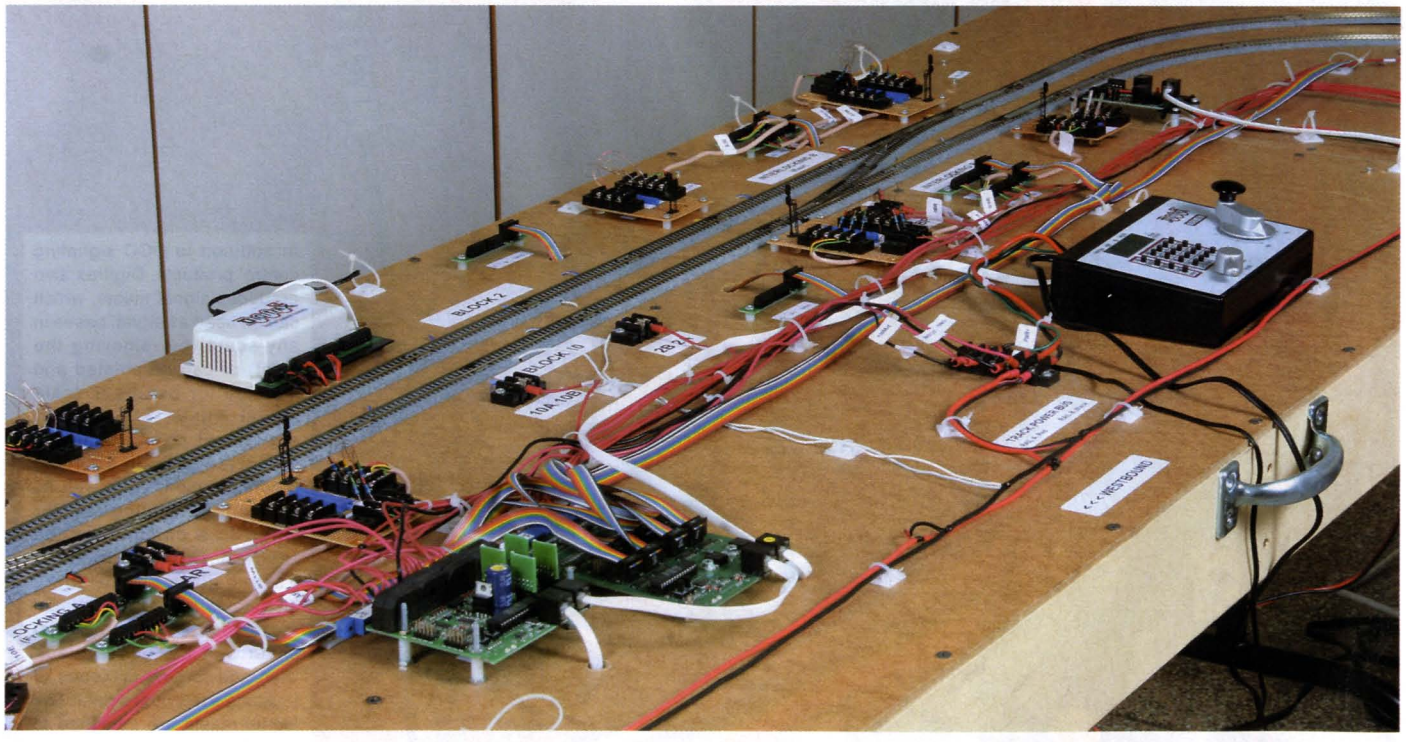
Table 1-F

Protected Block	Signal Location	Cable	A1, A2 B, C	LED	Switch Address	Cable Pins (C,A)	Signal Brand
2	S2W	DRV1	A1	Red	257t	4,1	NJI-2138 GYR over GR
				Green	257c	8,1	
				Yellow	258t	6,1	
				Flash	258c		
Interlocking B Rear (diverge)	S-IBR-d		A2	Red	259t	7,1	
				Green	259c	3,1	
				Yellow	260t	nc	
				Flash	260c		
			B	Red	261t	4,10	
				Green	261c	8,10	
				Yellow	262t	6,10	
				Flash	262c		
3	S3E		C	Red	263t	7,10	NJI-2003 GYR
				Green	263c	3,10	
				Yellow	264t	5,10	
				Flash	264c		
9	S9E	DRV2	A1	Red	265t	4,1	NJI-2138 GYR over GR
				Green	265c	8,1	
				Yellow	266t	6,1	
				Flash	266c		
Interlocking B Front (diverge)	S-IBF-d		A2	Red	267t	7,1	
				Green	267c	3,1	
				Yellow	268t	nc	
				Flash	268c		
			B	Red	269t	4,10	
				Green	269c	8,10	
				Yellow	270t	6,10	
				Flash	270c		
10	S10W		C	Red	271t	7,10	NJI-2003 GYR
				Green	271c	3,10	
				Yellow	272t	5,10	
				Flash	272c		

the connectors. This will make pin 1 much easier to see when you're making the cables. Per the instructions, pin 1 must always be aligned with the brown wire of the ribbon cable.

- The NorthWest Short Line "Chopper" is a great tool for cutting the ribbon cable. It's quick, easy, and makes a clean cut. If you don't have one, you can use a metal straightedge and a carpet knife.
- When clamping the connector onto the cable (using the vise method described in the instructions), tighten very slowly and listen for the "click" as the two halves of the cable snap together. If you don't have a vise available, a small C-clamp also works.

Once you've built the cables, the method of connecting them to the signals will depend upon the signals you've chosen. If you're using Digitrax Signal Mast Base Kit (SMBK), each signal plugs directly into the cable. Simply drill a hole through the layout large enough to fit the mast and use their Signal Mounting Hardware Kit (SMHK) to attach the signal to the layout. On the other hand, if you're using a different brand of signal (such as we're doing with Project DCC) it

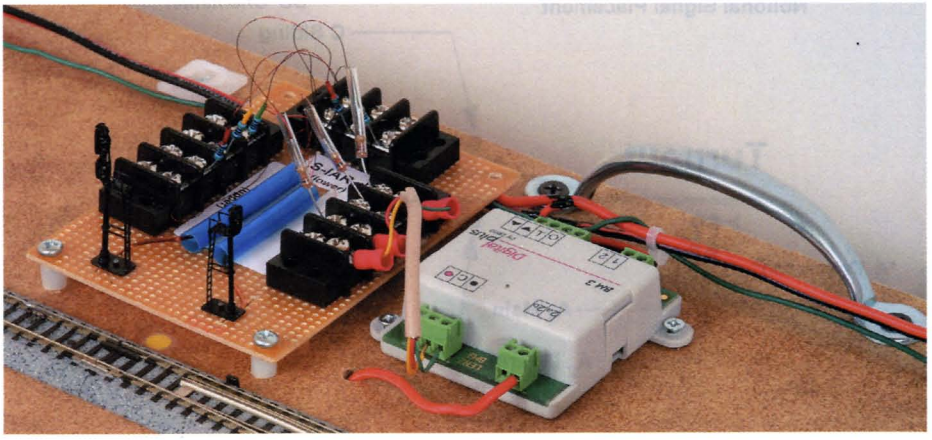


Here we see a view of the left leg of the layout, wired for Digitrax block detection and signal generation. Shown in the lower left of the photo is the Digitrax BDL168 block detection board and SE8C signal decoder board. You can see the multicolored ribbon cables routed to different clusters of signals. At the ends of each cable are TSMK connected to the NJI signals. You, of course, will want to wire everything underneath the table, out of sight.

is necessary to use the Digitrax Terminal Strip Mounting Kit (TSMK). As shown in Figure 3 (pg 92), each TSMK plugs into the signal cable and provides screw terminals to hook up two signals. This allows you to use nearly any brand of LED signal with the Digitrax SE8C.

Okay, let's talk about how the SE8C activates the signals as I promised earlier. Take a look at Table 1, in particular the "Switch Address" column. For each signal, two switch addresses are defined. The first address controls the Red and Green LEDs, while the second address controls the Yellow LED, which can also be made to flash. In order to change the state of a signal, you must send a switch command to the SE8C. Again looking at Table 1, to change signal S2W from Red to Green, you set switch 257 to closed. Therein lies the notion of a switch "decoder" instead of "controller."

The SE8C does not have the ability to automatically change signal states based upon block occupancy inputs from the BDL168; it must be told what to do by an external source, such as a throttle (manual commands) or a computer (automated commands). Consequently, even though we have signals installed, they won't actually follow train movements until we add a computer and software later in the Project DCC series.

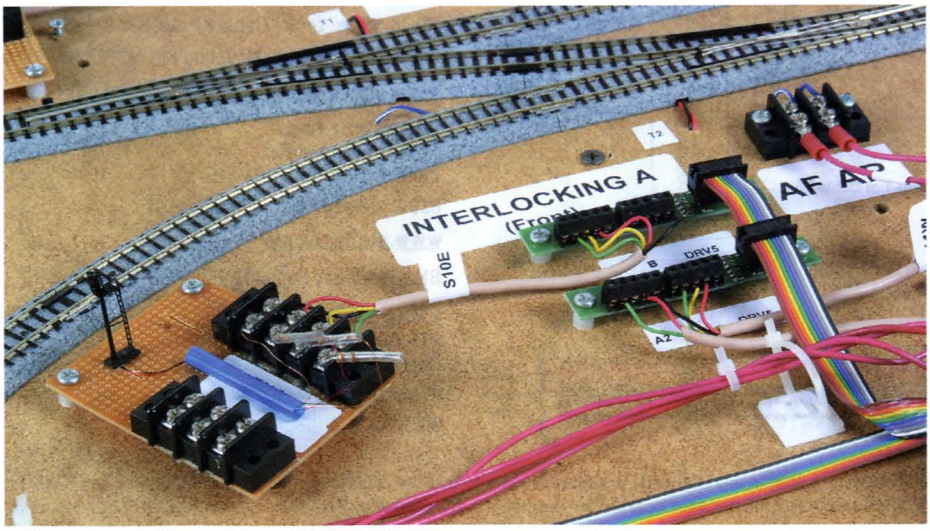


As an example of the Lenz installation, here we see the Lenz BM3 that handles one of the blocks on the left leg of the layout. As discussed earlier in our track assembly and block detection installment, the BM3 provides both occupancy detection and the ability to drive two-color track signals. We've now replaced our temporary LEDs from the earlier installment with the NJI scale signals. It is important to note that the BM3 is designed to drive incandescent bulbs (providing 15V DC at 100mA); to use LED signals you MUST include current limiting resistors. Fortunately the NJI signals include resistors so you don't need to do anything special. As discussed in the text, the BM3 is only driving signals in one direction; consequently it's connected to only one NJI signal.

Lenz BM3

Adding trackside signals to the block detection capability of the Lenz BM3 is a simple matter of connecting the signal to the BM3. Recall from our track assembly and block detection installment (Part 5), the BM3 is a self-contained occupancy detection and signal generation device. The simple green and red LEDs that were hooked up for testing could have easily been replaced with an N-scale signal during that installment, be we saved that until now.

Another unique aspect of the BM3 is its ability to control train movements, using what Lenz refers to as "asymmetrical DCC." To do so requires locomotives be equipped with decoders that understand asymmetrical DCC, such as the Lenz Silver and Gold series. In a nutshell, when the BM3 detects an occupied block ahead of the present block, it modifies the DCC signal in the present block. The Silver and Gold series decoder detect the change in DCC signal and activate the "Constant Braking Distance" feature of the decoder. This brings the locomotive to a stop in front of the red signal currently asserted by the BM3. Once the block ahead clears, the BM3 restores the DCC signal to normal, asserts the green signal, and the locomotive automatically starts again. The train that caused the block to be occupied can have any type of decoder; it doesn't need to support asymmetrical DCC. However that train will not be able to automatically stop at a red signal without it.



This close-up shows how the ribbon cable, TSMK and signal mounting boards are connected. Notice how everything is clearly labeled for ease of maintenance and debugging.

The BM3 is very easy to use and install, requires no setup or configuration, and works quite well. It does, however, have its limitations. Because of its European heritage, it only supports two-light signals (such as green/red); in contrast, US prototype signals are typically three-light (green/yellow/red). A second limitation is the inability to support bi-directional signaling. Project DCC has dealt with these limitations by not using the yellow signal LED and by limiting train movements to one direction only.

Coming Next Month

Next month we'll continue with Part 7B of Signal System Wiring with coverage of ZIMO and Atlas/Dallee. See you then!

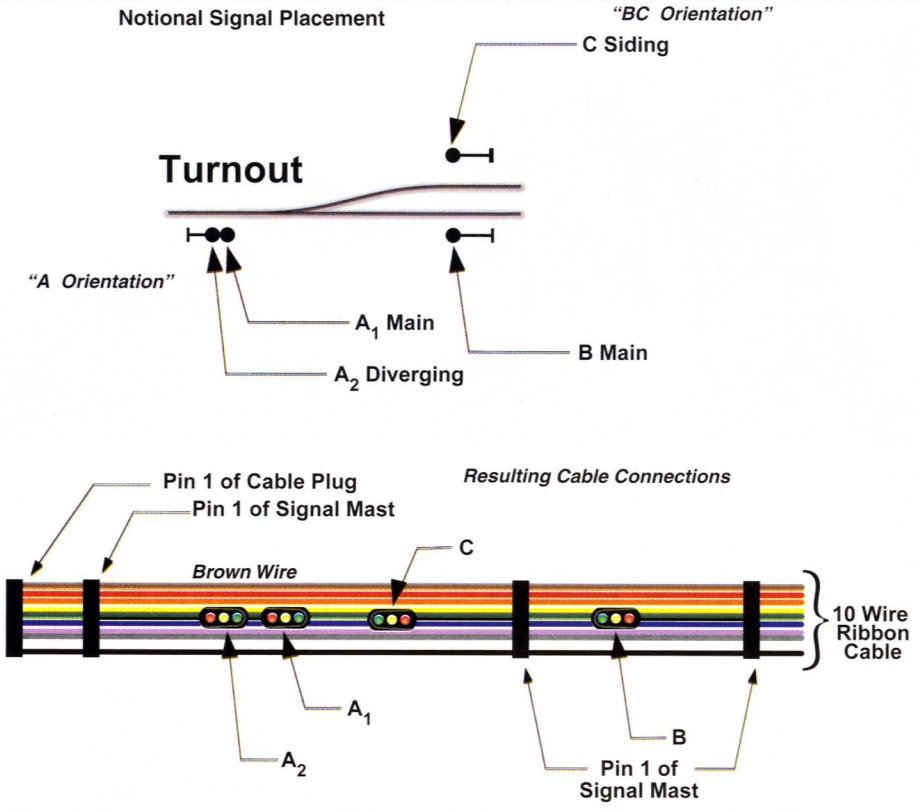


Figure 2 - Digitrax uses a clever method of supporting four signal heads with up to four LEDs each (Green, Yellow, Red, and Auxiliary) using only ten wires. The "A Orientation" of the signal mast refers to the position when Pin 1 of the ribbon cable (the brown wire) is aligned with Pin 1 of the signal mast. In this position, the top signal is A1 Mainline and the bottom signal is A2 Diverging. By reversing the signal mast you achieve the "BC Orientation" in which Pin 10 of the ribbon cable (the black wire) is aligned with Pin 1 of the signal mast. In this position, the top signal is C and the bottom signal is B. As indicated in Table 1, the signal orientation is important to determining the switch address that controls each LED (refer to the text for more information). —Drawing by Christy Halastik

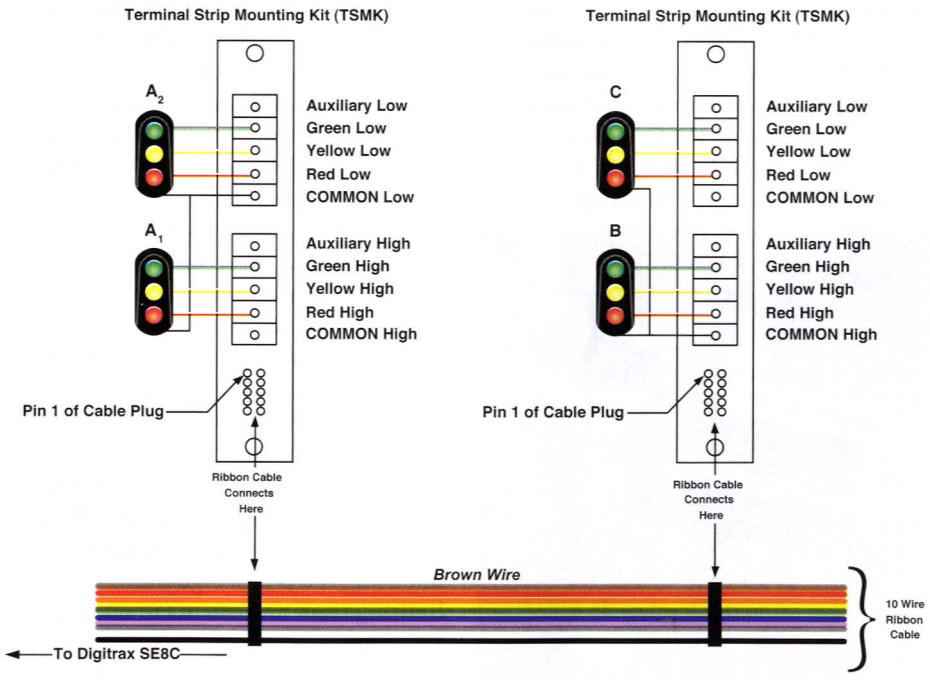


Figure 3 - Since Project DCC uses NJI signals, instead of the Digitrax plug-in signal masts, it was necessary to use the Digitrax Terminal Strip Mounting Kit (TSMK) to connect each signal to the ribbon cable coming from the Digitrax SE8C signal decoder board. The instructions supplied with the TSMK are somewhat confusing, and it took me several attempts to get the signals wired correctly. I finally concluded that when connecting B/C signals, Digitrax assumed that you knew to reverse the orientation of the TSMK by plugging it into the ribbon cable backwards (even though the instructions did not specify this). To avoid the need to reverse the TSMK for B/C signals I devised the modified wiring instructions shown here. Following these I was able to wire all of the NJI signals without any confusion. —Drawing by Christy Halastik

Update on Part 5

Due to space limitations in the October 2008 *MRN*, several photos from Part 5 (Track Assembly, Wiring, and Block Detection) were not printed. For those that are interested, a "photo essay" containing all Part 5 photos is available. Please send an email to **pscandura@modelrailroadnews.com** for your copy.

For More Information

Signal heads and dress-up kits for Digitrax signal masts are available from:

- Single Track Hobbies, Digitrax Signal Mast Dress-Up Kit (3 pack), MSRP: $20.00 (https://shop.singletrackhobbies.com/)
- Model Railroading University, Injection-molded plastic heads for Digitrax printed-circuit-board signals (3 pack), MSRP: $4.98 (www.modelrailroadinguniversity.com)

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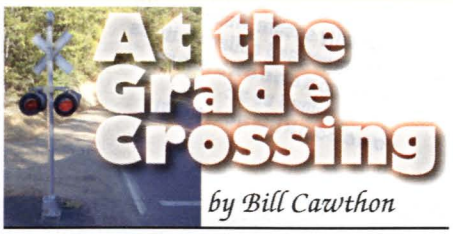

Photos by Bill Cawthon

HAPPY NEW YEAR! I hope you had a wonderful holiday season with family, fun, and at least a little model railroading.

2009 should be an interesting year. For one thing, we'll soon know whether we will have a domestic automobile manufacturing industry and perhaps what its future might look like. When I was a teenager, **General Motors** owned half the market and the federal government was considering forcing it to sell off its **Chevrolet** Division because Chevy alone, with its five distinct car lines and a complete array of trucks, accounted for about ten percent of all light vehicle sales in the U.S. To put that into perspective, that's about the same market share American Honda holds today. Back then, it seemed GM's 21st Century would be "Futurama-bright" as foreseen at the 1964 New York World's Fair.

Fast-forward some four decades to the real 21st Century and the General is on the ropes with a market share not even half what it was in the salad days. The company hasn't seen a profit since 2004 and, as I write this, is begging the federal government for a handout to keep it from insolvency. **Ford** and **Chrysler** are in similar shape. Whether you want to blame the situation on unions, management, or the current economy, the hundred-year-plus history of the American automobile could end this year.

I hope that won't be the case. Strictly aside from the damage it would do to our economy and what's left of our once-mighty manufacturing base, failure of the Detroit automakers would mean the end of an industry that is firmly intertwined with our American psyche. When other countries viewed the automobile strictly as a plaything for the rich, it was American entrepreneurs who put the world on wheels, making cars and trucks affordable for almost everyone, and giving Americans mobility unequalled in human history. Henry Ford's Model T was the inspiration for Ferdinand Porsche's Volkswagen and the Chrysler Airflow was the pattern for early cars from Toyota and Volvo. The Jeep, developed by American Bantam and refined by Willys and Ford, was one of the key weapons that secured the Allied victory in World War II. So many of the advances we take for granted today sprang from the minds of American engineers, still among the best in the world.

There's no doubt the industry must change: Reliving the glories of the past is seldom the best way to meet the future. But as a nation we need General Motors, Ford, and Chrysler to be a part of our future, which means we need to help them today.

Enough soapbox: let's talk models...

In the June 2008 edition of *Model Railroad News*, we reviewed the then-new **M2Machines** Auto-Thentics S-scale diecast cars from **Castline**. This impressive line of late Transition Era models featured a variety of well-known cars from the 1950s. Since our first report, the assortment has grown to a full dozen different cars offered in multiple colors. Among the latest releases are a 1953 Ford Crestline Victoria, 1954 Dodge Coronet, a 1955 DeSoto Fireflite, a 1955 Dodge Royal Lancer, a 1957 Chevrolet Bel Air, and a 1957 DeSoto Adventurer. On a recent trip to **Wal-Mart**, I picked up the '55 DeSoto and '55 Dodge from Release 4A. The Dodge is of special interest to me as 1955 was the year my Dad took over production of the Dodge line, his first major promotion. His first company car was a light blue 1955 Dodge Coronet sedan.

Both the DeSoto and Dodge are decorated in the tri-color scheme popular in the mid-1950s. Like the Auto-Thentics I reviewed last spring, these new models feature opening doors and hoods that can be raised to reveal the engine. Vent wings are separately added pieces, making the doors more like the real thing. There is loads of detail on each model and the paint and pad printing are excellent.

M2Machines will have some more Mopars in its next release, which should be hitting the stores by the time you read this. The new collection includes a 1969 Plymouth Road Runner, a 1970 Chevrolet Chevelle SS, and 1970 Dodge Super Bee, some of the hottest members of the muscle car era.

The Auto-Thentics remain some of the best models available in S scale; they're definitely foreground-quality and the price is surprisingly reasonable, given the value that Castline adds to them. Plus, since each car is offered in more than one color, you can add a number of them without any duplication.

I am happy to report Castline has expanded the availability of the Auto-Thentics line since I last wrote about them. In addition to online sources, they are available at **K-Mart**, **Toys 'R' Us**, and Wal-Mart stores.

Moving up a scale, **TWH Collectibles**

The latest additions to M2Machines' Auto-Thentics collection include the 1955 DeSoto Fireflite and 1955 Dodge Royal Lancer. Each of the nicely detailed S-scale models is offered in multiple colors.

Like all the Auto-Thentics, the doors open and the raising the hood reveals an engine. In the case of the 1955 Dodge, it might have been one of the Red Ram Hemis that dominated racing that year.

is a Wisconsin-based company specializing in museum-quality replicas and promotional models. Established in 2004, TWH's earlier releases have included heavy equipment and specialized truck models created for manufacturers like Bucyrus International, Manitowoc, Oshkosh, and Vermeer Manufacturing. In November of 2008, TWH Collectibles announced that **b2bReplicas** would be the exclusive distributor of a new line of premium fire and rescue models. Katherine Stratton of b2bReplicas arranged for me to borrow a sample of one of the new Pierce fire engines from TWH Collectibles.

New from TWH Collectibles is this Pierce Quantum Pumper in 1/50 scale. This premium replica contains more than a hundred parts and is loaded with detail and fine touches.

The first entry in this new line is a modern Pierce Quantum Pumper in 1/50 scale. The TWH models are limited editions with just 1,500 pieces each scheduled for Kern County, California; Henrico County, Virginia; Honolulu, Hawaii; San Antonio, Texas; and Seminole County, Florida. An interesting concept is the fact there will be multiple unit numbers for each department. This follows the practice of real fire departments which will often buy more than one of a particular type of apparatus. For example, the Kern County No. 42 pumper we received is one of five units decorated in that department's white and blue livery. By the way, the 1,500 piece quantity covers all five-unit numbers so there are actually just 300 of each number.

The prototype for our model is one of four 2007 Pierce Quantums in service with the Kern County Fire Department (the fifth engine in the TWH run is based on a 2008 Quantum). Engine 42 is stationed at KCFD Station 42 in Bakersfield, California. Like its siblings, Engine 42 is powered by a 515-horsepower Detroit Diesel engine with an Allison automatic transmission. It carries 750 gallons of water, 35 gallons of class A foam, and three 5 gallon cans of class B foam. It is equipped with a 1,500 gallon-per-minute Waterous single-stage pump, removable monitor and an assortment of hoses and fittings including two reel-mounted hard rubber lines. In addition, the Kern County engines carry other firefighting and rescue equipment appropriate for a first-out vehicle.

TWH worked closely with Pierce and the KCFD to get the models as accurate as possible. The highly-detailed replicas include: frame-mounted fuel tank and battery boxes accurately located on the undercarriage; realistic air, hydraulic

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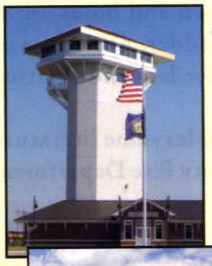

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The TWH model features positionable front wheels, a working suspension, opening doors on the hose lay compartments and two functioning hose reels. The cab tilts up to reveal a very detailed engine and transmission.

and electrical hoses, and wiring placement; detailed cab interior; cab-roof-mounted air conditioning unit; accurate gauge panel with fills and discharges; chromed, photo-etched grille; department-accurate emergency lighting, front bumper configuration and decal packages; separate grab handles; diamond plate decking; front and rear tow hooks and hose fairleads. A delicate radio antenna is on the cab roof. Even the license plate is correct.

Functional features include a tilting cab that can be raised to display the detailed diesel engine (with rotating cooling fan) and transmission; poseable front wheels; functioning suspension; a ladder rack that swings down and holds an extendable extension ladder; opening panels that reveal the hose lays and rotating hose reels.

The package includes some literature about the Kern County Fire Department and information about the real Pierce Quantum fire trucks. Everything is packed in carefully molded Styrofoam. There are a few pieces that will need to be added by the modeler: these include the monitor and rearview mirrors. There is also a package of wheel chocks.

This is a first-rate model with outstanding attention to getting even the smallest detail right. The pump control panel is an accurate reproduction of the prototype and even the Pierce Command Zone control panel is visible through the driver's window. The front light bar not only has accurate supports, TWH included the electrical line — a touch I have never seen before. Construction, paint, and print are all world-class with sharp, opaque graphics. It would be easy to spend hours exploring all the detail on this model and it's easily one of the best fire apparatus replicas I have ever seen. If you don't have a fire station on your O-gauge layout, this model would make it worth your while to add one. They are available from b2bReplica's retail web site, 3000toys.com.

Last November, I wrote about the 2009 Volkswagen CC. Originally, the piece was supposed to combine a review of the Wiking model scheduled to come out at the time the full-size version was appearing in dealer showrooms. Since this was an unusual convergence (I don't usually get to drive the real cars as the model is appearing), I thought this might be interesting for our readers. Naturally, as with most best-laid plans, all the required elements didn't come together in time and I was lacking the HO model when it came press deadline. Thanks to Al Muniz at **Models11** in San Antonio, which is my **Wiking** source, I now have the new models. I am happy to be able to say the Wiking replicas are a credit to their prototype, perfectly cap-

The Wiking HO model of the new 2009 Volkswagen CC is a well-made replica of the newest addition to the VW line in America.

New from Busch is this HO-scale New York City taxi. With its fore-and-aft-mounted advertising sign, it is a dandy replica of the thousands of cabs that crowded the streets of Gotham in the 1990s.

turing the new CC's styling in 1/87 scale. The finish is outstanding and each marking is clearly reproduced.

In the same package as the VW models was a new **Busch** model, the recently released New York City taxi. It's based on Busch's 1996 Ford Crown Victoria sedan and wears the familiar yellow livery and the front-to-back advertising sign typical of Big Apple hacks in the last decade. The wheels are blackened in accordance with the fact wheel covers and hubcaps don't last long on New York City streets. A couple zillion of these and you're ready to model a typical NYC street scene. Now all we need is a few black Lincoln Town Cars.

See you next month at the grade crossing!

If you have questions or comments for Bill Cawthon about model vehicles, e-mail them to: Gradecrossing@modelrailroadnews.com or snail mail them to: Grade Crossing, Model Railroad News, P.O. Box 1080, Merlin, OR 97532-1080.

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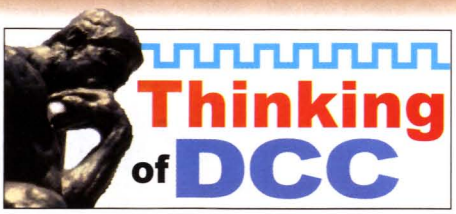
JMRI: Keeping track of your loco roster and decoder settings



BY JOHN SIPPLE — I have often advocated that we should all keep records on our locomotives and the decoders inside of them. More than once I've picked up a loco I haven't run for a while and can't recall what decoder was inside, never mind the CV settings. Hopefully, all works well and I don't need that data. I can put the little runner on a program track and read all the CVs about which I have questions, but this can be very time consuming.

Of course, I could reset the decoder and set all the CVs myself. In fact, I do when I initially program a decoder. I like to put all of my changes down on a file card, so I can refer back to it, and I've recommended this process in issues past. One of the problems of my file card or journal method is that I only store handwritten information; programming (or reprogramming, should a reset be necessary) must still be entered via my throttle. I'm not knocking the current crop of throttles, but I will say they are better at running trains than maintaining a body of information on every loco of your DCC roster.

So here's the problem; what's the answer? You're holding it in your hand. This magazine is produced through computers, and I use computers all day long. Some of you who use DCC don't do very much with computers; however, I would bet a bunch of DCC users might want to maintain their locomotives not only in more detail but also in an interactive manner. To do this, I have one word for you: Database. Basically, JMRI creates a computer database of your locomotives and all their settings. Most command stations have some sort of interface to accept commands from the outside world, and so it's time to connect a computer to my command station, use a dedicated database, and get to work on maintaining a coherent and interactive roster.

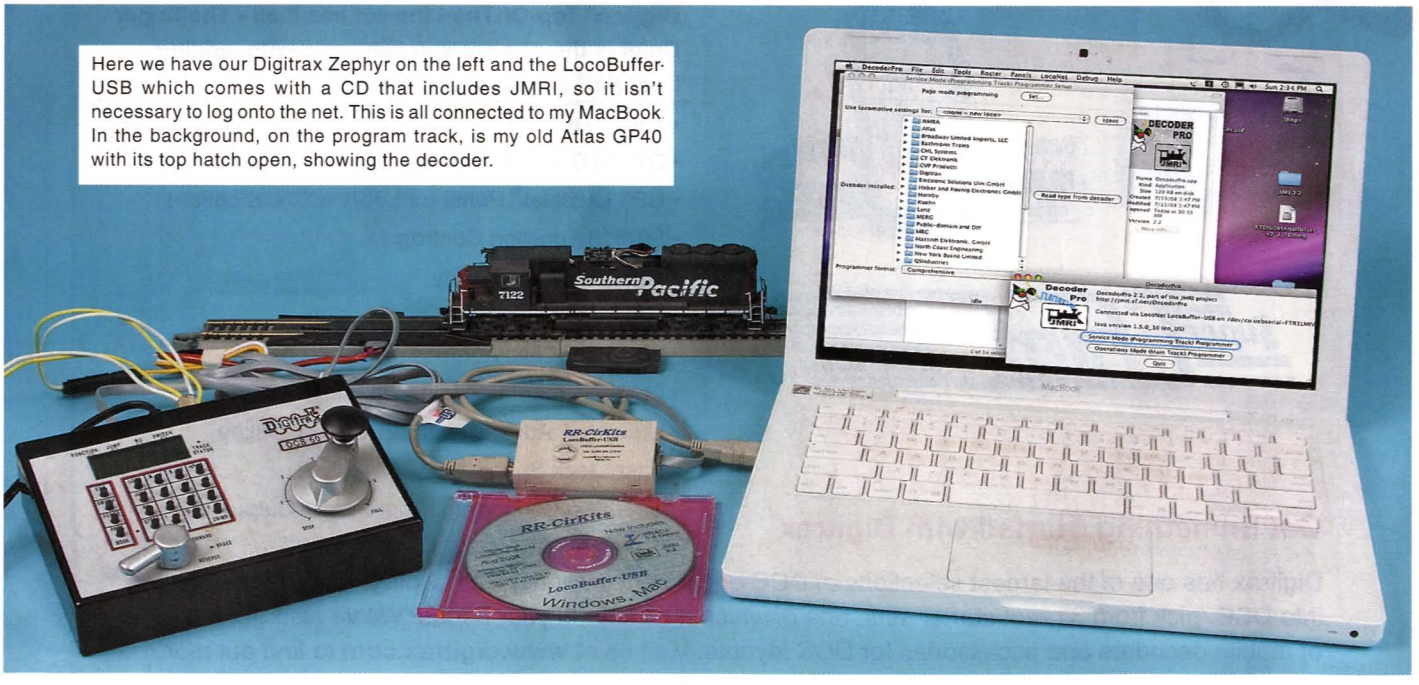
Enter JMRI

Java Model Railroad Interface (JMRI) alone tells us three important things. First comes JAVA, a common networking, computer programming environment originally created by Sun Micro Systems. As opposed to other computer programming languages that attach themselves to the physical structure of your system and must be modified to work on each different kind of computer and operating system, Java is dependent upon speaking to the Java interface provided by your computer and operating system. As a result, it works on several variations of Windows, a few on the Macintosh, and also on machines that use Linux.

JMRI is software and, like all software applications, it is a sort of game where if you learn the rules, you'll play well. The JMRI download for your computer is free but you may need to buy various things to connect your computer to your layout. Once you are connected (and that process we'll talk about down the line), you enter each locomotive, alter CVs by name or number, and then send these settings to your decoder, either on the mainline or a program track.

Despite the suggestions of the NMRA, even basic Control Variables (CVs) can vary to some extent from one decoder or brand to another. While much of this is perfectly legal in terms of NMRA's Recommended Practices (RPs), some of it is downright deviant. To bridge the difference, decoder descriptions are bundled into the JMRI download, including basic and generic versions, when the decoder doesn't have a description file on it.

JMRI is an open-source environment, so it is frequently upgraded with all suggested changes being written by knowledgeable volunteers who then pass this on through the project's director, leading to a new version. It is this vast cadre of skilled model railroaders who write the decoder definitions, create new features, and help grow the JMRI system. This not-for-profit approach has yielded a surprisingly rich



Here we have our Digitrax Zephyr on the left and the LocoBuffer-USB which comes with a CD that includes JMRI, so it isn't necessary to log onto the net. This is all connected to my MacBook In the background, on the program track, is my old Atlas GP40 with its top hatch open, showing the decoder.

New from Busch is this HO-scale New York City taxi. With its fore-and-aft-mounted advertising sign, it is a dandy replica of the thousands of cabs that crowded the streets of Gotham in the 1990s.

turing the new CC's styling in 1/87 scale. The finish is outstanding and each marking is clearly reproduced.

In the same package as the VW models was a new **Busch** model, the recently released New York City taxi. It's based on Busch's 1996 Ford Crown Victoria sedan and wears the familiar yellow livery and the front-to-back advertising sign typical of Big Apple hacks in the last decade. The wheels are blackened in accordance with the fact wheel covers and hubcaps don't last long on New York City streets. A couple zillion of these and you're ready to model a typical NYC street scene. Now all we need is a few black Lincoln Town Cars.

See you next month at the grade crossing!

If you have questions or comments for Bill Cawthon about model vehicles, e-mail them to: Gradecrossing@modelrailroadnews.com or snail mail them to: Grade Crossing, Model Railroad News, P.O. Box 1080, Merlin, OR 97532-1080.

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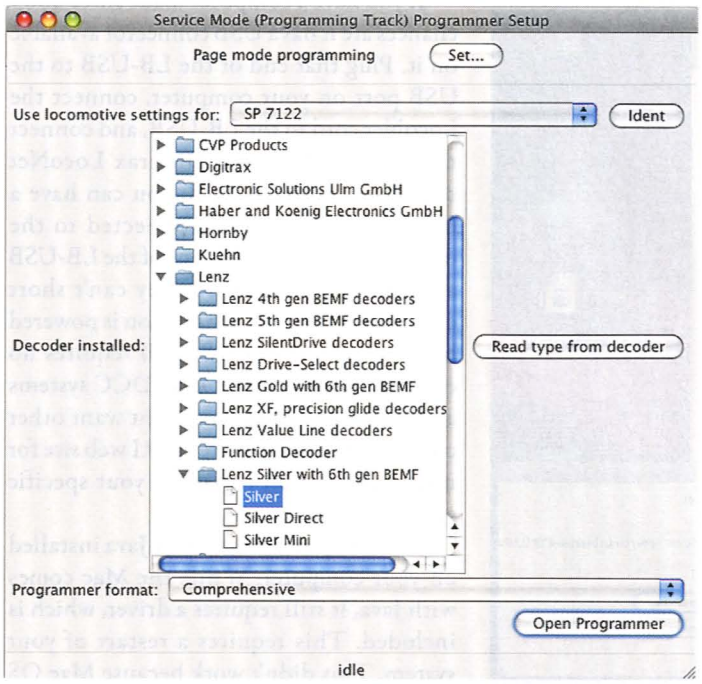

When I read my old Atlas GP40, this is what I found. The decoder is a Lenz Silver with 6th generation BEMF, the straight Silver version. If I click on the "Open Programmer" button, another window will open with all the settings as they come from the factory. I can then start to make whatever changes I wish.

(screens) that let us easily manage all of the information on a particular locomotive and its decoder. This is just what we've always wanted!

The first step with this new connection is to set up the software. It asks what DCC system you have, and it recognizes a large number of them. Then it inquires about your connecting device, which in our case is a LocoBuffer-USB. It already knows what computer you're using because you downloaded the software package that matches your machine. Then it wants to know if you're going to be working through the Programming Track or on the Mainline. You can go back and change any of this very quickly, because the various windows remain open for quick access.

If all goes well, it is time to put your system to work. I took a model locomotive with a decoder, put it on the program track, and got started. Understand that most of the time, we make very few changes to the decoder's programming, simply because the manufacturer's best guess is a pretty good one. Decoder Pro will work on any scale, and there's room in it for notes about both the loco and the decoder.

I found some very complete references to decoders in my locos. In fact, I was literally stunned by what all I could access. Speed tables? Decoder Pro gives you what looks like a sound EQ with all the settings on sliders. When you make changes in a pane, you can write all changes to the decoder in one action. Then you save these changes to the database.

Only the beginning

I haven't really even scratched the surface, but look at the screen shots and go visit the web site for JMRI first. From there, check out the movies on Decoder Pro on that web site and look up the computer operating systems and the DCC systems supported and how to connect with them. I'll come back with another episode on Decoder Pro. My colleague, Phil Scandura, will be examining computer control of DCC layouts using some of the other JMRI applications in the near future, so there's some fun to be had in both locations. We'll see how my database has grown and what I've learned that I can share with you.

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If you have questions, answers, suggestions, tips, or comments about DCC and the topic in this column, e-mail me at: dcc@modelrailroadnews.com or send a letter to: DCC, c/o Model Railroad News, P.O. Box 1080, Merlin, OR 97532-1080

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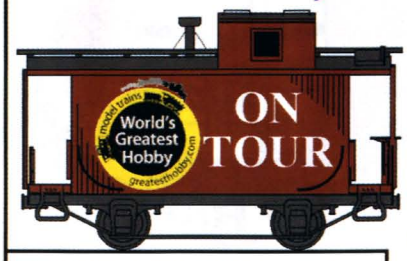

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Make The Most of a Model Railroader's Personality

BY STEVEN GOEHRING — Looking back on this first semester of college, I can see how many things have been very different for me since August. There are the classes, the location, and the people, sure, but what's relevant here (or as relevant as anything I ever write) is the new environment I'm in, and how my background in model railroading interacts with it. But for your benefit, I'm truly keeping the column short this month. Me + Philosophy + Wordiness = Disaster (and I'm not much better at math!)

I strongly believe that college is an exercise in defining yourself, and I've capitalized on my creativity, craftsman skills, mild nostalgia, and simple love of being the unique one in my own efforts to find the real "me." And I'll be the first one to say I'm happy with the results. I still get sideways glances for understanding, and God forbid, liking trains, but among my real friends, I've fit in through simply being who I am. From what you've read in this space, I'm sure you know by now that being a model railroader is a big part of who I am. So read on and consider my experiences in my first semester away from home, in a totally new place with the ability to define myself however I want. I have retained much of the assets of a model railroader's personality, and I think it would benefit you to do so, too.

I don't mean this as an advice column, but more of a reflection on my experiences with an eye towards traits that most model railroaders share and can benefit from. So here goes!

Keep an Inventive Mind

Have you ever had a moment where you're seeking to identify yourself, and the only thing that keeps coming to mind is an escaped lab rat? I probably exaggerate, but I did find something distinctly different between my high school life of hobby shop working and school theater tech crew volunteering.

I was constantly surrounded by creativity back home, so I noticed when all of a sudden I was in a new place where I was always the one with a solution for everything. Broken towel rack? Super glue it and encase the joint in hot glue, hasn't broken again since. Need more shelf space above the toaster? Glue a box to the wooden poster-tacking strips on the wall. While working with inherently crafty people back in high school, I would have probably been third in line with a solution and everyone else would have a better one than me.

Now, though, I see just how much a technical hobby can do for you, and model railroading is one of the best technical hobbies out there. We all know how we've learned about carpentry, electronics, painting, model building, design, economics, history, (gasp for breath) and everything else that our unique hobby involves. What's interesting me lately is not just how to apply that outside of railroading, but what that can do for you in finding a niche in a new place. I know I earned some respect from friends and my roommate for being quick to find a solution to little but annoying problems around the dorms. And to all you bachelors out there, girls don't remember the witty things that your competitors say about sports or TV. They remember it when you fix something that they use every day, even if it's just a wall hook. No, it's not nerdy, not in the conventional sense; it's having the skills and know-how that used to be more common.

What difference can this scene make when moving to a new place and trying to find friends, fit in, and identify who you are? A lot of difference, really. Model railroading encourages creative thinking, development of technical skills, and a constructive appreciation for history. All of these are good personality traits often missing today, so think about it and take advantage of your hobby's other benefits.

While I'm still far from really earning the title, all of the Mr. Fix-Its that I've known have been people I'd be proud to emulate (mostly my dad, and my friend Wayne Zeigler from Moravian Hall Square.) So I have no qualms at all about letting my creative side be one of the first personality traits I share.

Nostalgia's Nice, Too

While I'm mentioning the days when having craftsman skills in college wasn't weird, there are other aspects of nostalgia that I find convenient and fun to share in social situations. The most obvious of these is a true railroad classic: the pocketwatch. My paternal grandfather left one to me, a true wind-up one with a steam locomotive etched

into the back. It really catches some attention at more formal events and serves as a great conversation starter. I suspect that railroad kerosene lanterns on a camping trip would have much the same effect.

Coincidentally, some aspects of popular culture are making full circle and becoming interesting to people again, much like the pocketwatch and kerosene lantern. For me, one such example that ties into model railroading is the entire swing music genre. My new home, Juniata College, has a very active and fun swing dance club, and I have a fellow model railroader from my old job at Trains N' Lanes Hobbies to thank for that. Seriously, Brian Schaefer, you and that tape player of yours woke up a personal taste in me that shows no signs of ever going to sleep again. Listening to the good old lively jazz tunes at work combined with my grandfather's old music library to define my musical tastes for nearly a decade to come (and counting!)

So I guess they're right when they say that history repeats itself, and that current events are the first draft of history. Even when it may seem strange for a nostalgic railroader's tastes to be coming back into focus, it can, does, and I dare say, will happen. Keep your eyes out, friends, and you'll be the really trendy ones in addition to the unique crowd that no community is complete without. While you're at it, remember that the technical side of our hobby can make us model railroaders vital to any group of friends. Most important of all, keep your creativity with you. Not everyone has it, and as long as you can think a project through, you will never be lost or overwhelmed by problems that cost most people a lot of effort and money to correct.

So be proud of this hobby! That doesn't mean wearing your Big Boy or GG1 T-shirts everywhere, but bring the lessons of your leisure activity with you. The people around you will appreciate it, and they will appreciate you, too.

If you have any questions, comments, tips, or suggestions concerning this column or model railroading in general, send them to: The Future of Model Railroading, c/o Model Railroad News, P.O. Box 1080, Merlin, OR 97532-1080 or e-mail to: tamr@modelrailroadnews.com.

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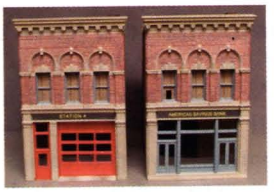

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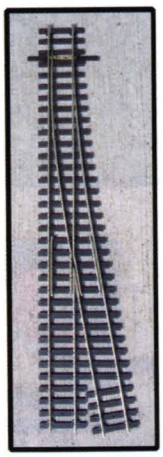

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Why N Scale?

N DEPTH

Welcome to a New Year

BY PHIL SCANDURA — It's 2009 and we've chosen a new president, a choice that will have far-reaching impacts in the months and years to come; not unlike the choice of a modeling scale. Last July I asked *Model Railroad News* readers to share their experiences in N scale. I wanted to know how they got started, what they enjoy most, and why they stay with N scale year after year. This month I'll share those responses with you.

Apartment Dweller

Mike Martin of Floral Park Long Island, New York writes, "I have been an N-scale devotee since 1966. I have always had an interest in trains, even as a toddler. I had wooden trains, Lionel, and HO. About eight years of age I started reading *Model Railroader* and *Railroad Model Craftsman*. In American Hobby Center's ad there was an offer to get Arnold Trains at a bargain price. I finally saw them at Polk's Hobbies and Model Railroad Equipment in New York City.

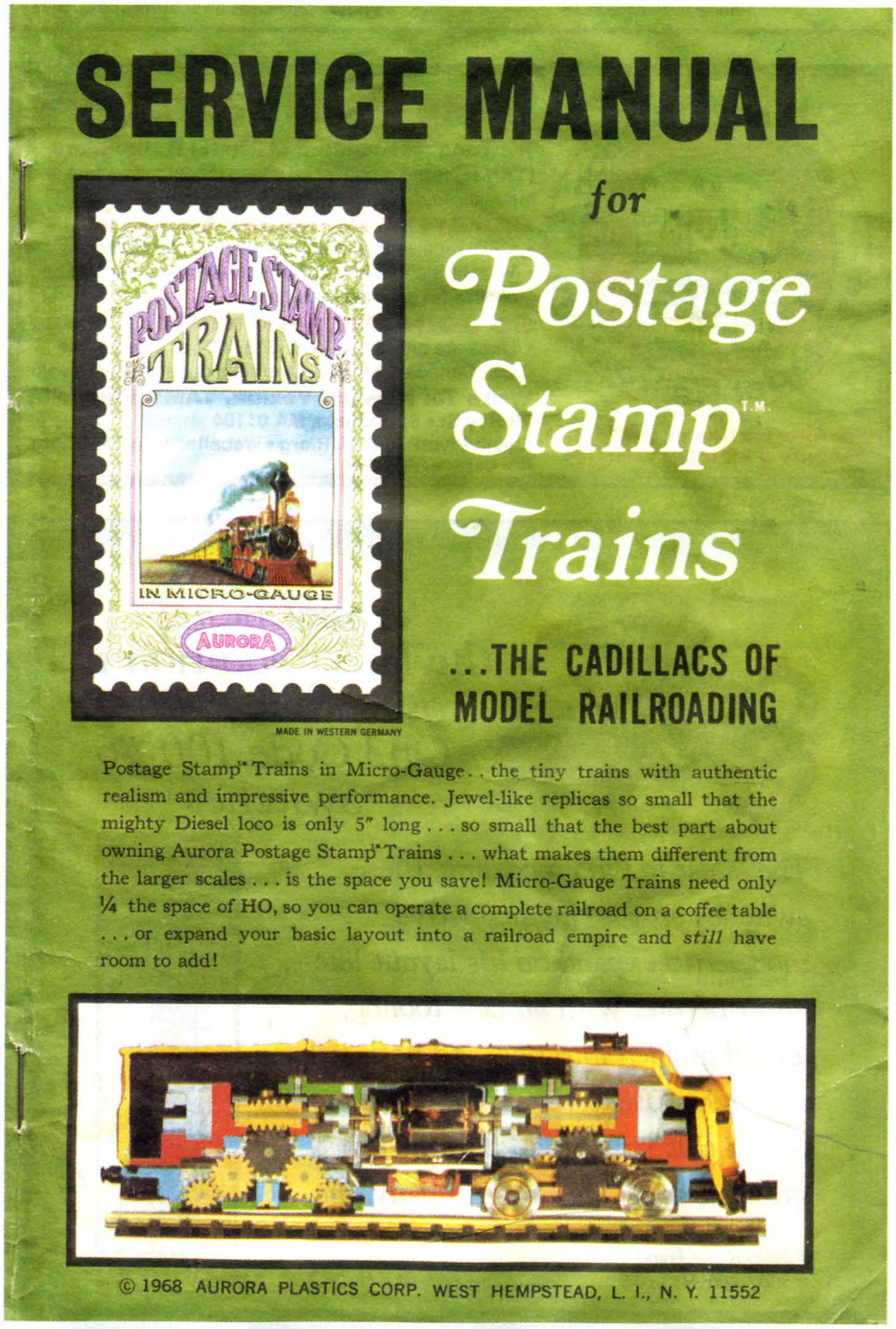
"Living in a small apartment in Brooklyn I felt this was the way to go with the hobby. My friend Harvey had a set that he was willing to trade for Erector set motors. Since I rarely used my Erector Set, the trade was made. The engine was a Baldwin switcher. The set also contained a boxcar, gondola, caboose, and a European style tank car. The couplers weren't even Rapido! The power pack was battery-powered. A trip to Polk's in New York City and I purchased more track and a boxcar. The boxcar actually had a compromise coupler to mate with the old style and the Rapido couplers.

"In the summer of 1967 many companies and manufacturers jumped on the N-scale bandwagon. The quality was good in most cases and the cars had a better scale appearance. I was in high school at the time and trains took a bit of a back seat, but I never lost interest. Today I still enjoy N scale and I'm about to turn 56. The quality and operation is amazing and DCC has added to the joy of operation.

"I have been a member of one of our local N-scale clubs, Long Island NTRAK, for about 15 years. I enjoy your magazine and always look forward to the next issue. Keep up the good work."

No Compromises

Gary Roe of Quincy, Illinois writes, "When I first became interested in model railroading (1971), I did not know whether I should go into HO or N scale. I did some research as to what was available, and the overwhelming evidence pointed to HO. So, that's what I started with. Around 1985 – 1990, I purchased a few N-scale cars which were lettered for my favorite road, just to have something to put in my display case. A few years later, I discovered a caboose, then a pair of engines that were also painted in the same roadname. Within another 5 years, I had gone pretty much overboard on purchasing N-scale equipment, had joined an NTRAK club, and had decided that if I were to ever build a layout of my own, it would be in N scale.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Many of our N-scale readers are old enough to remember Postage Stamp Trains from Aurora. This faded, tattered service manual is all that remains from my first N-scale train set. Received as a birthday present in 1969, it would plant the seeds of the scale destined to dominate my future.

"Fast forward to today, I still have a lot of HO-scale equipment (and still model in that scale, as well as some in O scale); but still plan to build an N scale layout. The old tried, true, and (perhaps) worn out saying that "you can get so much more in the same space" is still what drives me in that direction. However, I don't want to cram in that much more track, I want to have more space for scenery and buildings. I have found that I can model almost every bit of track which existed in a town at the end of a branch line without any selective compression. Yes, I am going to be modeling it in true 1:160 proportion. The only compromise I will have to make is to slightly sharpen one curve to a 48-inch radius! It just doesn't get any better than that."

Hooked on NTRAK

Stan Houpt of Lansdale, Pennsylvania writes, "I started as a kid with the four-by-eight platform under the Christmas tree. My parents would put up the Christmas tree and American Flyer layout after I and my sister had gone to bed on Christmas Eve. I don't know how they did it, but it was magic to us. In my early teens I got into HO because of the potential realism and more in the same space.

"In 1987, I attended the Philadelphia NTRAK convention. I was hooked immediately — long trains running on large layouts. The scenery potential was also what hooked me. The panorama and ratio of scenery to trackage is amazing to me. I have been active in NTRAK ever since. We have scenery detail which I feel rivals anything in larger scales. I have watched the change over the years from minimal selection to top quality everything: locomotives, rolling stock, building kits, electronics, DCC, etc. I tell people getting started in model railroading that N scale runs as well as or better then larger scales and to not be intimidated. Please see our club web site: www.keystonentrak.us, I think you will be pleased with our work.

"The other most important part of the NTRAK club is the social aspect. I started a home layout and got bored as so many others do and never finished it. With NTRAK you build 4 feet and you are ready to join in a unique layout each time. The interaction with others keeps you motivated and speeds the learning curve tremendously because there is always someone that has already made the mistake and can guide you."

Father and Sons

Jim Tuck of Flagstaff, Arizona writes, "It all started with limited space and a new family. Our first son, Will, was able to be involved in the construction and running of a small 3 x 4 layout, when he was quite young. Although the decision may have been without the appropriate amount of research, it's been sound. The layout I'm building now, in a 10 x 12 bedroom, offers much greater potential in N scale.

"Another advantage of the decision is that our two sons both had a 3 x 3 plywood square with an N-scale circle of track for under their small Christmas trees in their rooms. They had great fun running trains, and setting up buildings and people.

"I like to run HO at our club, and have some HO engines, but I'm glad I chose N."

The Power of Birthday Presents

What about my story? The year was 1969 and it was my ninth birthday party (do the math; now you know). The cake and ice cream were memories, my friends had long since gone home, and I was enjoying my new toys. Mom and Dad pulled me aside telling me there was one more gift to unwrap; something they had saved for last. Tearing off the wrapping paper as fast as I could, I held in my hands a Postage Stamp Train set in N scale. I didn't even know what N scale was at the time. In the previous years I had played with my Dad's American Flyer set (long since gone by this time), and I had some HO-scale trains too. But I had never seen N scale. A few weeks later Santa Claus would bring a Life-Like all-in-one N-scale layout, an over-and-under set that fit on a single foam board with mountains, trees, and buildings. It was small enough to fit under my bed. I could play with it anytime without having to travel down to the damp, dark basement to play with my HO.

I was hooked immediately. Over the years I would buy or receive other train sets as well, like an O-27 Marx set, more HO, G scale for the backyard, even a Z-scale set. But I would continue my fascination with N. When I went off to college I brought along a shoebox full of N sectional track, some locos, cars, and a power pack. After long days of classes and homework I'd set everything up in one of the study rooms in my dorm. When I moved into an apartment, I drew up a plan for a small N-scale layout in my bedroom. It never got built, as the demands of college increased with the higher-level classes. But I kept drawing plans.

After graduation I bought a condo and built a four-by-eight N-scale layout in the entryway. Visitors to the house were greeted by the layout once they stepped in the front door. My wife would later comment she wasn't quite sure what she was getting herself into, but years later she knows. Every house since then has included a layout, including the Project DCC layout that occupied our current dining room for a full year while the series was being written!

Today I only have N scale, having sold off or given away all other scales. As my eyesight continues to be affected with age I have considered a move to S, but I'm finding it hard to part with N, having been a part of my life for so many years.

Future Column Topics

What would you like to read about? What topics in N scale are of interest to you? Please send me your suggestions for future columns, using the e-mail address listed at the end of this column.

A Quick Plug for DCC

Every so often I receive a letter from a DCC operator asking advice on speed matching locomotives. Way back in 2005, *Model Railroad News* published a three-part series (in the March, April, and May issues) entitled "Giving Your Locomotive a DCC Tune-up." Since that time, we have created a handy how-to publication containing the three-part series in a single Adobe Acrobat PDF file. To order your copy, please contact subscriptions@modelrailroadnews.com and ask for the DCC Tune-up How-To reprint.

Next Time...

In the next couple of columns I'll share with you mini-interviews of influential manufacturers in our hobby. We'll talk about what they do, why they do it, how they got started, and even a little sage advice. See you then!

—

Feel free to E-mail any comments or questions about N scale in general to: ndepth@modelrailroadnews.com. Or write to: N-Depth, c/o Model Railroad News, P.O. Box 1080, Merlin, OR 97532-1080. Suggestions, contributions, and announcements are all welcome.

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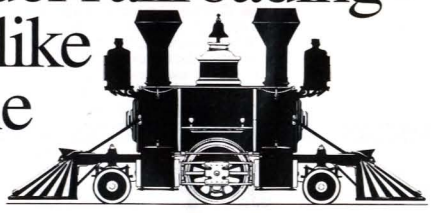

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EVENTS & ACTIVITIES

Events for the March 2009 issue must be received by January 16th, 2009

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Free trial subscription cards of Model Railroad News are available upon request for show and meet attendees. Call, fax, or e-mail for details.

Events & Activities can be viewed online at www.ModelRailroadNews.com

Arkansas, Bentonville — The Sugar Creek Model Railroad and Historical Society's Sixth Annual Great NWA Model Train & Historical Memorabilia Show will be held on February 28th, at the Clarion Hotel and Convention Center, 211 SE Walton Blvd. Hours will be from 9:00 a.m. to 4:00 p.m. Admission: $5.00, adults; children 12 and under admitted free. For more information, contact: Bill Wright, P.O. Box 3113, Bella Vista, AR 72715; (479) 426-1544; e-mail: w5mth73@cox.net

California, Indio —The Coachella Valley Model Railroaders will be at the Riverside County Fair National Date Festival on February 13-22, in the Home Arts Building, at 82-503 Highway 111. Hours will be from 10:00 a.m. to 10:00 p.m. all ten days. Attractions will include their fully scenic HO Scale layout with over 2,500 feet of track, and over 500 feet HOn3 layout operating with DCC. There is an admission fee to the fair, but their display is free. For more information, contact: Jim Hundley, (760) 347-6218; e-mail: jim@cvmrr.com; visit: www.cvmrr.com or www.datefest.org

California, Santa Clara — The Nineteenth Annual San Francisco Bay Area O Scale West Meet will be held January 29-31st, at the Hyatt Regency Santa Clara, 5101 Great America Parkway. Attractions to include full S Scale participation, clinics, videos, door prizes, meet car, contests, O and S Scale modular layouts on site, and layout visits. Admission: $25.00 if postmarked by December 31st; $30.00 if postmarked after December 31st; registration includes spouse and children under 18. For more information, contact: O Scale West, 876 Boyce Ave., Palo Alto, CA 94301-3003; (650) 329-0424; fax: (650) 329-0423; for e-mail, visit: www.oscalewest.com

Colorado, Lakewood — The Foothills Society of Model Railroaders' Model Railroad and Toy Train Swap Meet will be held on January 17th, at Christ on the Mountain Church, 13922 W. Utah Avenue. Meet hours will be from 9:00 a.m. to 12:00 noon. Admission: $3.00, adults; $1.50, over 64 or under 12. For more information, call George, (303) 989-0087; or Eric, (303) 985-1491.

Connecticut, Shelton — Classic Shows, LLC will be holding a train and toy show on January 4th, at the Courtyard by Marriott Shelton, 780 Bridgeport Avenue, exit 12 off Route 8. Hours will be from 9:00 a.m. to 2:00 p.m. Admission: $5.00, children 12 and under admitted free with adult. For more information, contact: Classic Shows, LLC, P.O. Box 2415, Shelton, CT 06484; (203) 926-1327; www.ClassicShowsLLC.com

Connecticut, Wallingford — Classic Shows, LLC will be holding a train and toy show on February 8th, at Zandri's Stillwood Inn, 1074 South Colony Road, U.S. Route 5, exit 13 on Interstate 91. Hours will be from 9:00 a.m. to 2:00 p.m. Admission: $5.00, children 12 and under admitted free with adult. For more information, contact: Classic Shows, LLC, P.O. Box 2415, Shelton, CT 06484; (203) 926-1327; www.ClassicShowsLLC.com

Florida, Homosassa —Regal Railways Presents Train Show will be held on January 24th, at Lions Club Hall, located at 3705 S. Indiana Terrace and CR 490 E. Homosassa Trail. Hours will be from 10:00 a.m. to 3:00 p.m. Attractions to include operating layout, and vendors. Admission: $4.00, adults; children under 13 admitted free. For more information, contact: Joe Schramm, 1424 Regal Road, Clearwater, FL 33756; (727) 244-1341.

Florida, Lake Wales — The Historic Lake Wales Society/Lake Wales Model Railroad Club will be sponsoring the 11th Annual Train Show & Swap Meet on February 7th, at Hardman Rec. Complex, located at Seminole and 3rd Streets. Hours will be from 9:00 a.m. to 3:00 p.m. Admission: $5.00, adults; children under 12 admitted free when accompanied by a paid adult. Parking is free. For more information, contact: Darrell Smith, 1145 Sand Mountain Rd., Fort Meade, FL 33841; (863) 559-3160; or Jennifer, (863) 678-4209.

Florida, Palmetto — The Sarasota Model Railroad Club's Orange Blossom Special Show will be held on February 21-22, at Manatee Civic Center, 1 Haben Blvd. Hours will be from 10:00 a.m. to 4:00 p.m. on Saturday, and from 10:00 a.m. to 3:00 p.m. on Sunday. Attractions to include 100 sales tables, HO modular layout, "C.O.M.E.T." — their "Hands On Railroad," along with Make and Take, and T-Trak assembly classes. Admission: $7.00, adults; children admitted free with paid adult. Bring a copy of this ad and receive $1.00 off adult admission. For more information, call: Dan Cioffi, (941) 758-3602.

Florida, Pinellas Park — Regal Railways will be sponsoring a Train Show to be held on February 28th, at the Knights of Columbus Hall, 7177 58th Street North. Hours will be from 10:00 a.m. to 3:00 p.m. Attractions to include small operating layout, and vendors. Admission: $4.00, adults; children under 13 admitted free. For more information, contact: Joe Schramm, 1424 Regal Road, Clearwater, FL 33756; (727) 244-1341.

Florida, Stuart — The Martin County MR Train and RC Show and Sale will be held on January 17th, at Martin County Fairgrounds, 2616 Dixie Hwy. Bldg. G, A1A across from Witham Airport. Hours will be from 9:00 a.m. to 3:00 p.m. Attractions to include a layout, clinics, and door prizes. Admission: $5.00, adults; children under 12 admitted free. Parking is free. For more information, call: Al Galli, (908) 619-1814.

Georgia, Pine Mountain — Narrow Gauge Railway Day will be held on February 7th, at Callaway Gardens, 17800 U.S. Highway 27. Show will be begin at 8:00 a.m. Admission: registration in advance, $12.00; day of, $15.00. For more information, visit: www.themontgomerys.info/narrowgaugemeet/Welcome.html

Illinois, Wheaton — The Great Midwest Train Show will be held on January 11th, at the DuPage County Fairgrounds, 2015 W. Manchester Road. Show hours will be from 9:30 a.m. to 3:00 p.m. Admission: $7.00, adults; children under 12 admitted free. For more information, contact: Great Midwest Train Show, P.O. Box 34, Elmhurst, IL 60126; (630) 290-1962; fax (240) 597-4482; www.greatmidwesttrainshow.com

Indiana, Fort Wayne — The Maumee Valley Railroad Club will be sponsoring a Model Railroad Show and Swap on February 28th, at Coliseum Bingo, 911 W. Washington Center Road. Hours will be from 9:00 a.m. to 2:00 p.m. Attractions to include operating layouts, hands on trains display, and play area. Site will have refreshments, free parking, and is handicap accessible. Admission: $3.00, adults; $5.00, families; children under 12 admitted free. For more information, contact: Maumee Valley Railroad Club, P.O. Box 162, Leo, IN 46765; or Chuck White, (260) 760-1666; e-mail: Railcarman@verizon.net

Kansas, Lawrence — The Lawrence Model Railroad Club's Model Railroad Show & Swap Meet will be held on February 21st, at the Douglas County Fairgrounds Building 21, located at 2120 Harper Street. Hours will be from 9:00 a.m. to 5:00 p.m. Attractions will include door prizes, a modeling contest, and operating club train layouts in HO- and N-scale. Admission: $5.00, adults; children 12 and under admitted free with an adult. $1.00 off admission with the donation of a canned food item, which will be donated to the L.I.N.K. food pantry. For more information, contact: LMRC, 255 N. Michigan #5-25, Lawrence, KS 66044; e-mail: jimforegolf@hotmail.com

Maine, Augusta — The Whitefield Lions Club's 22nd Annual Winter Model Railroad and Miniature Show will be held on February 14th, at the National Guard Armory, located on Western Avenue. Hours will be from 10:00 a.m. to 4:00 p.m. Attractions to include operating layouts, miniature displays, and 100 dealer tables. Site is handicapped accessible. Admission: $4.00, adults; children under 12 admitted free; $9.00, family. For more information, contact: Steven P. Laundrie, 50 Fairview Ave., Randolph, ME 04346; (207) 582-1410.

Maryland, Ellicott City — CSX Transportation, Constellation Energy, Homestead Gardens, and Bachmann Industries will be sponsoring the Holiday Festival of Trains, to be held November 28th – January 25th, at the Ellicott City Station, 2711 Maryland Avenue. Hours will be from 11:00 a.m. to 4:00 p.m. Wednesdays thru Sundays. Station will also be open December 29th, and 30th. The star of this year's Festival is a miniature Thomas the Tank Engine G-scale layout along with a new Multi-level O-scale layout. On December 13th and 20th, Santa will greet visitors in station's red caboose. Children may bring in a letter to Santa and mail it from the telegraph office. Admission: is $5.00, adults; $4.00, seniors (60+); $3.00, children between the ages of 2-12; children under 2, and B&O Members admitted free. For more information, call (410) 461-1945; or visit www.ecborail.org

Maryland, Timonium — The "Great Scale Model Train Show" plus the "Hi-Rail & Collectors Train Show" will be held January 31– February 1, at the Maryland State Fairgrounds, 2200 York Road. Show hours will be from 9:00 a.m. to 4:00 p.m. on Saturday, and from 10:00 a.m. to 4:00 p.m. on Sunday. Attractions will include 25,000 square feet of beautifully detailed display layouts in all scales; free train movies; clinics and demonstrations; and over 800 tables of model trains, equipment, and related items for sale. Refreshments will be available; parking is free. Admission: $9.00, adults; children under 15 admitted free; $18.00, family. Good for both days. For more information, contact: Howard Zane, 5236 Thunder Hill Road, Columbia, MD 21045; (410) 730-1036; e-mail: hzane1@comcast.net; www.gsmts.com

Massachusetts, Fall River — The Old Colony & Fall River Railroad Museum will be sponsoring the Twenty-Second Annual Railroad Show to be held on January 18th, at B.M.C. Durfee High School Gym, 360 Elsbree Street. Show hours will be from 10:00 a.m. to 4:00 p.m. Admission: $5.00, adults; $3.00, children 2 to 12; under 2 admitted free with adult; $13.00, family (4). For more information, contact: Jay Chatterton, Old Colony & Fall River Railroad Museum, Inc., P.O. Box 3455, Fall River, MA 02722-3455; call (508) 674-9340; fax: (508) 678-1220; e-mail: railroadjc@aol.com

Massachusetts, West Springfield — The Amherst Railway Society Railroad Hobby Show will be held January 24-25, at the Eastern States Exposition, 1305 Memorial Avenue. Hours will be from 9:00 a.m. to 5:00 p.m. on Saturday, and from 10:00 a.m. to 5:00 p.m. on Sunday. Attractions to include more than 40 operating layouts, G, O, S, HO, N, and Z scales, manufacturers, displays, model dealers, booksellers, railroadiana, clinics, live steam, historical societies, and railroad industry representatives. Admission: $10.00 daily, adults; children 15 and under admitted free when accompanied by an adult. For more information, contact: John Sacerdote, Show Director, Amherst Railway Society, P.O. Box 247, Monson, MA 01057-0247; (860) 243-0811; e-mail: showdirector@amherstrail.org; www.railroadhobbyshow.com

New Hampshire, Manchester — A Greenberg Train & Toy Show will be held January 17-18, at the Center of New Hampshire, 700 Elm Street. Show hours will be from 10:00 a.m. to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

New Jersey, Brooklawn — The Strasburg Railroad Club of Marlton, NJ will be hosting the Brooklawn Train Show & Meet, to be held on January 11th, at the American Legion Post 72, located on Railroad Avenue. Hours will be from 10:00 a.m. to 3:00 p.m. Admission: $4.00, adults; children 12 and under admitted free with paying adult. For more information, contact: Rich Drobil, (856) 506-4875; e-mail: rdrobi@hotmail.com

New Jersey, Somerset — A Greenberg Train & Toy Show will be held January 3-4, at the Garden State Exhibit Center, 50 Atrium Drive. Show hours will be from 10:00 a.m. to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

New York, Freeport — The Great South Bay Model Railroad Club will be presenting their 19th Annual Winter Train Show and Exhibition on January 11th, at the Freeport Recreation Center, 130 East Merrick Road. Hours will be from 10:00 a.m. to 4:00 p.m. Attractions to include operating layouts in all major scales, door prizes, and raffles. Admission: $5.00, adults; children under 12 admitted free with an adult. For more information, contact: The Great South Bay Model Railroad Club, 9 North Longbeach Ave., Freeport, N.Y. 11520.

New York, Hornell — The Hornell Model Railroad Club will be holding its Annual Show and Open House on February 7-8, in the Hornell, NY Courthouse basement (next to Friendly's Restaurant). Hours will be from 1:30 p.m. to 4:00 p.m. both days. Admission is free. For more information, call Louis K. Greiff, (607) 587-8372; or e-mail: louie113@frontiernet.net

New York, Middletown — A Greenberg Train & Toy Show will be held February 14-15, at Orange County Fair Arena, 100 Carpenter Avenue. Show hours will be from 10:00 a.m. to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

New York, Rochester — A Greenberg Train & Toy Show will be held February 21-22, at Monroe County Fair & Expo Center, 2695 East Henrietta Road. Show hours will be from 10:00 a.m.

to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

North Carolina, Wilmington — The Cape Fear Model Railroad Club Inc. will be hosting its 12th Annual Model Railroad Show & Sale on January 24-25, at the American Legion Post 10 Building, 702 Pine Grove Drive. Show hours will be from 10:00 a.m. to 5:00 p.m. on Saturday, and from 10:00 a.m. to 4:00 p.m. on Sunday. Attractions will include 43 vendor tables, free clinics, and operating layouts. Admission: $5.00, adults; $3.00, children 6-12; children under 6 admitted free. For more information, contact: Ben Jackson, (910) 270-2696; (910) 617-1724; or visit: www.CapeFearModelRailroadClub.org

Ohio, Dayton — The All Trains Swap Meet will be held on January 11th, at Montgomery Co. Fairgrounds, 1043 S. Main. Hours will be from 11:00 a.m. to 4:00 p.m. Attractions to include model trains in all scale, railroad antiques, and collectibles. Refreshments will be available. Admission: $5.00, adults; under 12 admitted free. For more information, contact: Larry Zeller, 1215 Camaro Ct., Piqua, OH 45356-9793; (937) 773-7186.

Pennsylvania, Allentown — The Great Lehigh Valley Train Meet will be held on January 17-18th, at Merchants Square Mall, 1901 S. 12th Street. Hours will be from 10:00 a.m. to 4:00 p.m. on Saturday, and from 10:00 a.m. to 3:00 p.m. on Sunday. Attractions to include over 12,000 square feet of model trains, parts, railroadiana, operating layouts, door prizes, and more. Admission: $5.00, adults; children 12 and under admitted free with an adult. For more information, contact: Valley Rail Promotions, P.O. Box 64, Coplay, PA 18037; (610) 440-0487; www.valleygoto.com

Pennsylvania, Bethlehem — The Black Diamond Society of Model Engineers will be holding an Open House on Jan. 3-4, at 902 East Macada Road. Hours will be from 7:00 p.m. to 9:00 p.m. in November and December, and from 2:00 p.m. to 5:00 p.m. in January. Attractions to include two floors of operating train displays in O, S, and HO scale, as well as pre-owned trains and accessories for sale. Admission: $3.00, adults; $1.00, students; under 6 admitted free. For more information, contact: C. Maguire, (610) 395-0752; www.bdsme.org

Pennsylvania, Bethlehem — The Lehigh & Keystone Valley Model Railroad Club will be holding an Open House on January 1st, from 2:00 p.m. to 7:00 p.m. at 705 Linden Street. Admission $5.00, adults; children under 12 admitted free. For more information, contact: Louie Blaukowitch, 705 Linden St., Bethlehem, PA 18018; (623) 810-5730.

Pennsylvania, Elkins Park — The Cheltenhills Model Railroad Club will be having an Open House on January 3-4, 10-11, and 17-18, at Cheltenhills Model Railroad Club, 8000 Old York Road (at Railroad Bridge adjacent to Elkins Park Square). Admission is free; donations gratefully accepted. For more information, call (215) 635-9747.

Pennsylvania, Greensburg — A Greenberg Train & Toy Show will be held February 7-8, at Laurel Highlands Event Center, in the Westmoreland Crossing Mall Annex. Show hours will be from 10:00 a.m. to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

Pennsylvania, Hazelton — The Anthracite Model Railroad Society will be hosting an Open House on Fridays and Saturdays from November 27th thru January 3rd, plus Sunday, January 4th, at the rear of 1057 Peace Street (Hanover Court). Hours will be from 5:00 pm. to 8:00 p.m. on Fridays; from 12:00 noon to 8:00 p.m. on Saturdays, and from 5:00 p.m. to 8:00 p.m. on January 4th. For more information, e-mail jps2102@verizon.net, chuckandmaryann@verizon.net, or trainnut@ptd.net; or visit www.AMRS.org

Pennsylvania, Philadelphia (Oaks) — The World's Greatest Hobby On Tour will be held January 3-4, at the Greater Philadelphia Expo Center. Show hours will be from 10:00 a.m. to 6:00 p.m. on Saturday, and from 10:00 a.m. to 5:00 p.m. on Sunday. Attractions will include entertainment, operation model layouts, manufacturers, and hobby shops. Admission: $10.00, adults; children under 16 admitted free; admission is good for both days. For more information, contact: World's Greatest Hobby On Tour, P.O. Box 11, Elmhurst, IL 60126; (630) 279-5094; fax: (630) 214-4113; www.wghshow.com

Pennsylvania, Phoenixville —The Schuylkill Valley Model Railroad Club's Annual Open House will be held January 10-11, 17-18, and 24-25th at 400 S. Main Street. Hours will be from 1:00 p.m. to 5:00 p.m. Attractions will include the club's layout which models Reading to Philadelphia with numerous buttons that allow visitors to bring scenes to life, Thomas the Tank, and a scavenger hunt. Admission is free; donations gratefully accepted. For more information, visit or call the club on Tuesday evenings, (610) 935-1126; e-mail: svmodelrailroadclub@yahoo.com; or visit: www.svmrrc.com

Pennsylvania, Richboro — The Abington Lines Model Railroad Club will be having Open House on Jan. 3-4, 10-11; and Feb. 7-8, at 2066 Second Street Pike (PA Rt. 232). Hours will be from 12:00 noon to 4:00 p.m. Attractions will include multiple trains with digital radio control and sound, two track mainline exceeding 1,000 feet in length, extensive trolley operation, a circus, operating roundhouse, industrial switching areas, waterfront with rail car ferries, wilderness waterfall, and multiple buildings with exquisite interior detailing. Admission is free; raffle trains, donations appreciated. For more information, call the Club at (215) 598-7720; or visit: www.abingtonlines.org

Pennsylvania, York — A Greenberg Train & Toy Show will be held January 10-11, at York Expo Center, 334 Carlisle Avenue. Show hours will be from 10:00 a.m. to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

Tennessee, Nashville — The World's Greatest Hobby On Tour will be held February 14-15, at the Nashville Convention Center. Show hours will be from 10:00 a.m. to 6:00 p.m. on Saturday, and from 10:00 a.m. to 5:00 p.m. on Sunday. Attractions will include entertainment, operation model layouts, manufacturers, and hobby shops. Admission: $10.00, adults; children under 16 admitted free; admission is good for both days. For more information, contact: World's Greatest Hobby On Tour, P.O. Box 11, Elmhurst, IL 60126; (630) 279-5094; fax, (630) 214-4133; www.wghshow.com

Texas, Plano — The 24th Annual Dallas Area Train Show will be held on January 17-18th, at Plano Center, 2000 East Spring Creek Parkway. Hours will be from 10:00 a.m. to 5:00 p.m. on Saturday, and from 10:00 a.m. to 4:00 p.m. on Sunday. Admission: $7.00, adults; children under 12 admitted free. For more information, contact: Bart Bartholomew, 6403 Duffield Drive, Dallas, TX 75248; (972) 733-4998; www.dfwtrainshows.com

Texas, San Antonio — The World's Greatest Hobby On Tour will be held February 21-22, at the San Antonio Convention Center. Show hours will be from 10:00 a.m. to 6:00 p.m. on Saturday, and from 10:00 a.m. to 5:00 p.m. on Sunday. Attractions will include entertainment, operation model layouts, manufacturers, and hobby shops. Admission: $10.00, adults; children under 16 admitted free; admission is good for both days. For more information, contact: World's Greatest Hobby On Tour, P.O. Box 11, Elmhurst, IL 60126; (630) 279-5094; fax, (630) 214-4133; www.wghshow.com

Virginia, Virginia Beach — A Greenberg Train & Toy Show will be held February 28-March 1, at Virginia Beach Convention Center, 1000 19th Street. Show hours will be from 10:00 a.m. to 4:00 p.m. both days. Show will feature a huge marketplace of train, toy, and hobby dealers, operating model railroads, and instructional presentations. Admission: $7.00, adults good for both days; children under 12 admitted free. For more information, contact: Greenberg Shows, P.O. Box 34, Elmhurst, IL 60126; (630) 279-4087; e-mail: Staff@Greenbergshows.com; www.greenbergshows.com

Washington, Monroe — The United Northwest Model Railroad Club will be hosting its 18th Annual Model Railroad Show to benefit the Snohomish County 4H on January 31st – February 1st, at Evergreen State Fairgrounds, 14405 179th Avenue SE. Hours will be from 10:00 a.m. to 5:00 p.m. on Saturday, and from 10:00 a.m. to 4:00 p.m. on Sunday. Admission by donation: $7.00, adults; $5.00, seniors, and juniors 10-18; children 9 and under admitted free. For more information, e-mail: swaptables@unwclub.org

Wisconsin, La Crosse — The 4000 Foundation will be hosting the 18th Annual "Great Tri-State Rail Sale" on January 31st, at the La Crosse Center, 300 Harborview Plaza, located at Second and Pearl Streets. Show hours will be from 9:00 a.m. to 3:00 p.m. Attractions will include a railroad flea market, hobby sale, and swap meet. Admission: $4.00, adults; children under 12 admitted free. All proceeds to maintain and restore the La Crosse Short Line Railroad display. For more information, contact: The 4000 Foundation, P.O. Box 3411, La Crosse, WI 54602; (608) 582-4761; e-mail: pdlamke@juno.com; www.4000foundation.com

AMHERST RAILWAY SOCIETY
RAILROAD HOBBY SHOW
January 24 & 25, 2009
Eastern States Exposition
1305 Memorial Avenue
West Springfield, MA 01089
Better Living Center
Young Building
Stroh Building
Mallary Complex
Our Railroad Hobby Show Features:
• more than 35 operating layouts.
• G, O, S, HO, N & Z Scale.
• manufacturers, displays, model dealers, booksellers, railroadiana, clinics
• historical societies and railroad industry representatives.
Saturday 9 am - 5 pm
Sunday 10 am - 5 pm
Daily Admission $10.00
Children 15 and under FREE
when accompanied by an adult.
Tickets on Sale 1 hour
before show opens
Visit us at: www.AmherstRail.org

MRN: A Year in Review

As a courtesy to our readers, we have compiled an index featuring every product reviewed in the pages of MRN over the past year. We hope you find it useful.

December 2008

Aristo-Craft (1:29) 40-Foot Boxcars
Athearn (N) Ford C Rescue Trucks, (HO) CSX & Santa Fe Train Sets, (HO) F-7A/B Diesel Locomotive
Atlas (N) Trainman Train Set
Atlas O (O) Industrial Rail Starter Set
Bachmann (Track) E-Z Command DCC Turnouts
Blair Lines (HO) Pizzaland Kit
MTH (HO) Railking Scale Diesel Starter Set
Steamscenes (Calendars) 2009 Railroad Themed Calendars
Piko (HO) ICE-3 Train Set
Tokyo Marui (Z) Night Train Set

November 2008

Project DC, Part 6: Turnout Control Wiring
Athearn, Kato & Walthers (HO) Intermodal Cars
Atlas O (O) Master Line, Train Man & Industrial Rail Freight Car Roundup
Bachmann (Fn3) Boxcar
Charles Smiley (Video) Key System Scrapbook
Con-Cor (HO) Union Pacific M-10000
GC Laser (N & HO) Utility Truck Toolbox Kit
Granite Creek (On3) Logging Cars
Noch (HO) Shed/Kiosk Kit
Pine Canyon (S0 Professional Building Kit
Preiser (HO) Vegetable Wagon
Smoky Mountian (S) 41-foot Flat Car Kit
Train Control System (DCC & N) Decoder for "Classic N" Locomotives

October 2008

Special Coverage: MTH/MKT Trade Secret Lawsuit Settled
Project DCC Part 5: Track Assembly, Wiring, & Block Detection
Atlas (N) C420 Diesel Locomotive
Bachmann (HO) Peter Witt-Style Street Car
BVRR Specialties (Tool) Maxi-Grip Screw Starter
Grizzly Mountain Engineering (O) Farmers & Freight Wagons
Kadee (HO) Cushion Underframe Boxcars
Kato (N) Gunderson MAXI-IV Well Cars
Lionel (O) Legacy-Equipped FEF-3 Steam Locomotive
NCE (Electronics) DCC Wireless System
NSLC (Tool) Flamingo Glue
Oak Tree Systems (Electronics) SC-2 Servo Controller
Preiser (O) American Railroad Figures
Ye Olde Huff N Puff (On30) Freight Car Kits

September 2008

Special Coverage: NMRA 2008 National Train Show
Project DCC Part 4: Layout Configuration
Banta/Bachmann (On30) Boxcar Body Conversion Kit
Factory Direct Trains (HO) Trackmobile
Golden West Books (Book) West Coast Interurbans-California
Lionel (O) Legacy 990 Command Control System
MTH (HO) GS4 4-8-4 Daylight (O) Railking SW1 Diesel Locomotive
Red Caboose (HO) S-40-5 Stock Cars
Smokey Mountain Model Works (S) Ventilated Boxcars
Tomix (N) Freight and Fire Trucks
Wheels of Time (N) Harriman Passenger Cars
Woodland Scenics (O) Scenic Accent Figures

August 2008

Project DCC Part 3: DCC System Familiarization
Allen Keller (DVD) Great Model Trains Vol. 58
Aristo-Craft (1:24) C-16 Steam Locomotive
Bachmann (All Scales) DCC Control System, (Fn3) Tank Cars
Brass Trains (Book) Brass Model Trains Price & Data Guide Vol. 1
Broadway Limited (HO) Union Pacific Big Boy Steam Locomotive
Intermountain (N) SD45-2 Diesel Locomotive and Wood Deck Flat Car
Kato (N) Daylight Northern 4-8-4 GS 4 Steam Locomotive Set
MTH O) 19th Century Wood Coaches
Sidetrack Laser (HO) Cougar Ridge Lumber Co.
Siflor (All Scales) Landscaping Material
Walthers (HO) Proto 2000 Early EMD Road Switchers

July 2008

Special Coverage: How to Modify Your Old Roundhouse Box Cab
Project DCC Part 2
Athearn (HO) SD40-T Tunnel Motors
Bachmann (On30) Baldwin 4-4-0 American Steam Locomotive
Brass Guide (Book) Brass Train Guide Book
First Gear International (HO & O) TD25 Crawler
ESU/Loksound (All Scales) Sound Decoder with Railmaster Hobbies Ported Speakers
ICOM (N) TMC400 Motorcar, Park Set, Park Institution, and Bulldozer
Micro-Trains (N) 40-Foot Drop Bottom Gondola with Woodchip Extension
River Point Station (HO) F-350 Duallies
USA Trains (1:29) Fairmont Speeders

June 2008

Nuremberg International Toy Fair 2008
Project DCC Part 1
Aristo-Craft (1:29) Live Steam 2-8-2 Mikado Steam Locomotive
Athearn (HO) F-850 Flat Bed MOW Trucks
Atlas Trainman (N) Thrall 4759 Covered Hopper and Master Line (N) ACF 5701
Centerflow Plastics Hopper
Blair Line (HO) Gerald Depot Laser-Cut Kit
Broadway Limited (HO) Blueline RSD-14 "Alligator" Diesel Locomotive
Busch (HO) Summer Cottage Built-Up Structure
Castline (S) Auto-Thentic Pontiac Star Chief, Ford Crestliner & Mercury Sun Valley Autos
Charles Smiley (DVD) *Union Pacific Scrapbook*
Great Northern Book Publishing (BOOK) *BNSF Railway Freight Cars Vol 2.*
Marklin (Z) Commodore J1e Hudson Locomotive
Tangent Scale Models (HO) PS-2CD Hoppers
Walthers (N) Proto N GP18 Diesel Locomotive
Weaver Models (O) Head End RPO and Baggage Cars
Western Scale Models Blacksmith Shoppe Craftsman-style Structure Kit

May 2008

Special Report: 1:87 Vehicle Coverage from the 2008 International Toy Fair
American Ltd. Sand Towers and Fuel Cranes
Aristo-Craft (Large Scale) Rail Joiners Track Accessory
Athearn (HO) Genesis EMD MP15AC Switcher Standard DC & Sound DC/DCC
Atlas O (O) EMD F2/F3s 2-Rail and 3-Rail
Bachmann (1.20.3) Side-Door Gondola
CMW/Walthers (HO) GM PD 4103 Intercity Bus
Golden West Books (Book) *Piggyback and Containers: A History of Rail Intermodal on America's Steel Highway*
MNP/Bachmann/NCE (O) DCC-Powered Track Cleaning Car
Masterpiece (HO) 2007 Jeep Wrangler Unlimited
Micro-Trains (N) ACF Three Dome Tank Car
PrairieWorks (DVD) *SOO Line: From Michigan to Montana*
USA Trains (1:29) "Great Lakes" Ore Cars
Walthers (N) Cornerstone Injection-Molded Structure Kits, (HO) Hiawatha 52-Seat Coach and Express Car

April 2008

Aristo-Craft (1:29) GP40 Locomotive with QSI Sound
Athearn (N) Pre-weathered NACC 50-Foot Boxcars & (HO) John Deere Log Skidder
Atlas O (O) SD40 *Red Baron* Locomotive & Wood Express Reeder
BTS (O) Singer Watch Repair Kit
Bar Mills (HO) Tylick Tool Company Kit
BRAWA (HO) Pin-Socket Street Light
Blackstone Models (HO) D&RGW 3000 Series Boxcars
Broadway Limited (HO) Hybrid 4-6-4 New Haven I-5 Hudson
Charles Smiley (DVD) *Great Shortlines West*
MTH (HO) 2-8-8-8-2 Triplex Locomotive
Masterpiece (HO) 1936 Chrysler Airflow Imperial Eight
QSI Solutions (1:29) Plug-N-Play Aristo Sound Decoder

March 2008

Athearn (HO) Maxi I Well Car 5-Car Set with New Tooling
Atlas (N) ALCO C420 Diesel DC & DCC, (N & HO) 1978 Ford Fairmont Sedans, & (HO) Plastic Truss Bridge Kit
Bachman (Large Scale 1:20.3) K-27 *Mudhen* & 2-Bay Hopper
Banta Modelworks (O) Laser-Cut Gas Station Kit
C. Vision Productions (DVD) *Windy City Rails Vol. 3*
MTH (O) *RailKing Imperial* USRA 2-8-8-2 Mallet with ProtoSounds 2.0 and DCS Control
Kato (N) Yard Crew & UNITRAK Superelevated Track Set
Sidetrack Laser (HO) Classic Ice House Kit
Signature Press (Book) *Southern Pacific's Salt Lake Division*
Walthers (N) Proto Heritage DCC-Ready USRA 0-8-0 Yard Goat & (HO) *Hiawatha* Coach & Parlor Car
Woodland Scenics (N) 1950-Era Auto Scenes

February 2008

Aristo-Craft (Large Scale) Stainless Steel Wye Swiches
Athearn (N) PS-1 Boxcar and Mill Gonolas, (HO) SD40-2 Locomotive, (HO) John Deere 624J Wheel Loader & 770CH Motor Grader, (O) Ford Model As
Atlas O (O) Founder Series USRA 0-6-0 Steamer
Bachman (Large Scale) Flat Car
BLMA (N & HO) Modern Yard Office and Port-A-Potty
CMW (N & HO) 1950s-era Ford F-350 Pickup
Con-Cor (N) *Galloping Goose* Railbus
Great Northern Pacific Publications (Book) *Burlington Northern Railroad Cabooses 1970 - 1995*
San Juan (On30) D&RGW 3000 Series Boxcar, Short Caboose & High-Side Gondola
Scott Mason (DVD) *Building Craftsmans Structure Kits Vol. 3*
Sun Coast Models (O) Coaling Station
Woodland Scenics (N) Picket Line, Playtime, Campers, & Canoers & (Multi Scale) Trees
Walthers (HO) Proto200 Gondolas and Tank Cars

January 2008

Athearn (HO) Santa Fe Built-Up Depot, (HO & O) John Deere 5010 Tractors
Atlas (HO) Hairpin Fencing Kit
Atlas O (O) Freight Car Round Up (12 models)
Busch (HO) Smart Car
Charles Smiley (DVD) *Santa Fe Vintage West*
Custom Model Railroads (HO) Laser-Cut Acrylic Roundhouse Kit
Deluxe (N) Gunderson Maxi-Stack III & Trailers
King Mill (PC & Mac) Kit-O-Mat Structure Design Software
Mountain Model Imports (HOn3) K-27 Mikado Steam Locomotive
Ricko (HO) Chrysler 300C SRT8 Sedan
Scott Mason (DVD) *Building Craftsman Structure Kits Vol. 2*
Walthers (HO) F7 Locomotives
Woodland Scenics (HO) Railroad Worker Figures

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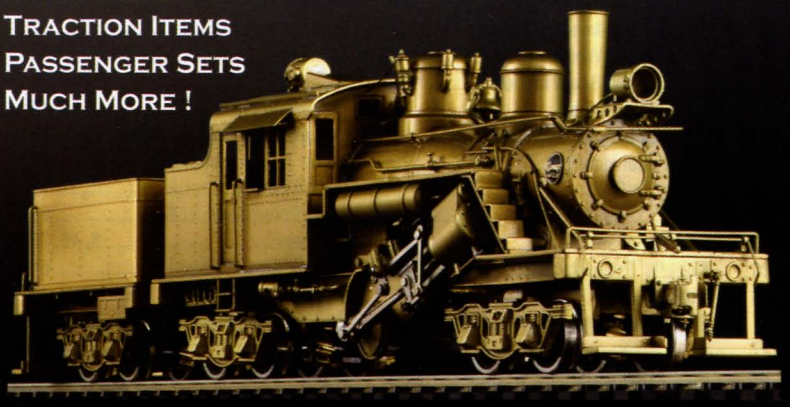

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